

TE
301
M68
1974
IGSL
UCB

915

KEWAYS PLAN



UNIVERSITY OF CALIFORNIA

of the
CITY OF MONTEREY
+ Monterey + County + California +

City of Monterey



Colton Hall. California's Constitution Hall in 1849.

city hall, monterey, california 93940

telephone 372-8121

August 15, 1974

TE 301
M68
1974
IGSL
UCB

Honorable Mayor and City Council
City of Monterey
City Hall
Monterey, California 93940

Gentlemen:

On behalf of the Planning Commission and the Planning, Parks and Recreation, and Public Works Departments, it gives me great pleasure to submit to you herewith the City of Monterey Bikeways Plan.

This Bikeways Plan has been prepared as an amendment to the Circulation Element of the City's General Plan, since the circulation system of the City should be designed and specifically planned to meet the total transportation needs and desires of City residents. The Plan sets forth objectives and principles relating to bikeway development, describes planned bikeways, establishes minimum design standards, recommends rules for safer bicycling and suggests expansion of the City's bicycle safety program. Section IV, Phasing, describes the first-year pilot program costs, source of funding and extent of planned improvements; also included in this section is an intermediate range phasing schedule consistent and coordinated with the timing of future street alterations and new construction.

This Plan represents a genuine team effort among City staff, students, bicycle clubs and bicycle enthusiasts to prepare a plan which is truly responsive to community needs and unique to Monterey's character - to all of those who participated, I wish to express a special thanks. Their unselfish devotion has produced a Plan which I'm sure will prove to be an invaluable aid to the City Council, as well as to the staff, in guiding the proper development of bikeways for both local transportation and recreation needs of the community.

Respectfully submitted,

Richard Garrod

Richard M. Garrod
Planning Director

RMG:js
Enclosure

[Monterey. Dept of parks & recre]

[Monterey. Dept of public works]
Traffic Bicycles Monterey
City planning



Digitized by the Internet Archive
in 2026 with funding from
State of California and California State Library

<https://archive.org/details/C101743165>

THE
CITY OF MONTEREY
BIKEWAYS PLAN

An Amendment to the Circulation Element
of the City General Plan

Prepared by
City of Monterey Planning Department
in cooperation with the
Department of Parks and Recreation
and
Department of Public Works

July, 1974

CITY COUNCIL

Peter J. Coniglio - Mayor

Joseph G. Ansel
John M. Bouldry

Gerald T. Fry
Lou Rudolph

John H. Nail
City Manager

PLANNING COMMISSION

Ted W. Minnis - Chairman

Philip Anastasia
Virginia Fry
Boris V. Jacoubowsky

Michael A. Marotta
Frank Mercurio
Kenneth R. Wyatt

PLANNING DEPARTMENT

Richard M. Garrod
Planning Director

Advance Planning

Kenneth J. Gregory*
F. Haywood Norton*

Environmental Planning

W. William Fell*

Current Planning

Frank P. Donangelo
Fraser T. Sibbald

Office Administration

Jean K. Stemmons*
Doris G. Morgan

PARKS AND RECREATION DEPARTMENT

Peter J. Aldrete, Parks and Recreation Director
Peter V. Bruno, Recreation Superintendent⁺

PUBLIC WORKS DEPARTMENT

L.W. McIntyre, Public Works Director/City Engineer
Dennis Gorman, Assistant City Engineer⁺

* Staff for this report.

+ Supporting staff.

C O N T E N T S

	<u>Page</u>
ENVIRONMENTAL IMPACT REPORT	i
I. INTRODUCTION	
A. Purpose and Scope	1
B. Background.	1
Recent History.	1
SMATS Questionnaire	2
New Legislation	2
C. Definitions	4
II. BIKEWAY ANALYSIS	
A. Citizen Involvement	5
B. Visual Survey	6
Bikeroute Inventory Map	10
Bikeroute Problems Map.	10
III. BIKEWAYS PLAN	
A. Objectives.	11
Principles Relating to Bikeway Development.	11
B. Description of Bikeways	12
Recreational Bikeways	13
Recreation/Transportation Bikeways.	14
Bicycle Parking	27
C. Bikeways Within Future Development.	27
D. Bicycle Path of History	31
E. Public Safety	31
Bicycle Laws.	31
Safety Program.	34
F. Sources of Funding.	37
Federal	37
State	37
Local	39
G. Minimum Design Standards.	40
Bikeroute Design Standards.	40
Standard Signing and Pavement Stenciling.	56
IV. PHASING	
A. F.Y. 1974-75 Pilot Program: Aguajito Rd., Mark Thomas Dr., Sloat Ave.	59
B. Suggested Programmed Expenditures, F.Y. 1974-79	62
BIBLIOGRAPHY.	65

APPENDICES

Appendix A:	TCC Position Statement Regarding Bikeways	69
Appendix B:	SMATS Bicycle User Questionnaire Report	77
Appendix C:	Tentative Bikeways Map	87
Appendix D:	Bicycle Parking Survey, Naval Postgraduate School.	89
Appendix E:	List of Program Participants and Persons Consulted.	91

LIST OF EXHIBITS

Exhibit A:	Citizen Group Areas	7
Exhibit B:	Visual Survey Form.	8
Exhibit C:	Bikeroute Inventory Map	10*
Exhibit D:	Bikeroute Problems Map.	10*
Exhibit E:	Bikeway Development Plan.	25
Exhibit F:	Bicycle Parking	29
Exhibit G:	Bicycle Laws Pamphlet	33
Exhibit H:	Department of Motor Vehicles Notice . . .	36
Exhibit I:	Bikeway Plan Phasing.	65

*Note: These maps are available for review at the City of Monterey Planning Department.

ENVIRONMENTAL IMPACT REPORT
City of Monterey Bikeways Plan

I. Introduction

A. The California Environmental Quality Act of 1970 required preparation of Environmental Impact Reports (EIR's) for those projects that may significantly affect the environment. Subsequent state guidelines outline the contents of EIR's. EIR's must contain complete and correct data on a project's beneficial and adverse impacts. This data's purpose is to assist the City in making informed decisions on the project.

B. The City of Monterey's Bikeways Plan is an amendment to the Circulation Element of the City General Plan. As such it meets the definition of "project" found in the guidelines. Guideline Section 15147 does, however, allow satisfaction of the EIR requirement for a general plan element if that element: 1) addresses all of the points in Article 9 of the guidelines and 2) contains a special section addressing each of the points required.

C. This Environmental Impact Report intends to meet the guidelines above by addressing all Article 9 points in this section or by identifying where they are addressed in the Bikeways Plan itself.

II. Project Description

A. The Bikeways Plan is for the City of Monterey as located on Exhibit A of the Plan. It must however be viewed in the context of the Monterey Peninsula and County of Monterey.

B. Page 1 of the Plan explains its Purpose and Scope. Page 11 lists the Plan's objectives:

To make bicycling safer for purposes of recreation and transportation.

To develop a City bikeways system which will link with Peninsula and County bikeways to meet the needs of a wide range of bicycling enthusiasts.

C. Page 11 also lists the Principles Relating to Bikeway Development. Pages 12 through 24 describe the bikeways. And pages 40 through 55 of the Plan set minimum design standards.

III. Description of Environmental Setting

A. The City of Monterey is situated on the north shore of the Monterey Peninsula. It is 116 miles south of San Francisco and 335 miles north of Los Angeles. The City is

formed by a gentle sweeping curve of the Monterey Bay, with sandy beaches on the east side of Monterey's harbor and rocky shores to the west. On the south, the City climbs up the slopes of a ridge of hills covered with majestic Monterey Pine trees. To the east, Monterey's urban development joins Seaside and Del Rey Oaks, with Pacific Grove to the northwest. To the southwest, the sparsely settled Del Monte Forest separates Monterey from Carmel-By-The-Sea. On the southeast, the City's growth has been spreading along the Monterey-Salinas Highway; and many of the large, semi-rural or vacant hillside areas along this highway may eventually be included in the City Limits.

Monterey's main attraction and chief asset is its superb environment of scenic waterfront, forested hills, and moderate climate. The wooded skyline and the great expanse of ocean constitute a magnificent setting for the City.

Upon entering Monterey, one is struck by the open, park-like character of many portions of the City. Numerous deep, wooded canyons running through the City form major features of Monterey's physical character; and serve as greenbelts which separate the relatively flat, scenic mesas, where most of the City's development has occurred to date.

IV. Environmental Impact

A. Beneficial Impacts: An immediate or future project induced condition which will enhance or improve the quality of life of the community or the environment.

1. provides an alternative transport mode
2. provides recreational routes
3. Class I bicycle ways would minimize auto/bike conflict
4. reduces bicycle accidents
5. links with Peninsula and County bikeways
6. in comparison with motor vehicles, the bicycle:
 - a. uses a smaller percentage of materials
 - b. wears out fewer and lesser sized parts
 - c. needs no petroleum fuels for power
 - d. needs virtually no lubricants
 - e. uses less rubber
 - f. leaves no atmospheric pollutants
 - g. is virtually silent
 - h. takes less space, both for movement and parking

B. Adverse Impacts: An immediate or future project induced condition which will degrade or endanger the quality of life of the community, other communities or the environment.

1. Class II and III bikeways may lend a false sense of security to bicyclists.

2. Class II-B two-way bikeways with parking allow conflict between parked car and bicyclist. Removal of parking would be unpopular with residents and merchants.
3. Class II bikeways' suggested bicycle movements at intersections (Plate 6) necessitate some movements involving a superior level of skill.
4. Class I bikeways will increase microclimatic heat, impervious surface and runoff potential.
5. Class I, II, and III bikeways will increase sign clutter. (Pages 56-58 of the Plan.)
6. New Class I-A and new streets and highways widened to allow Class I-B, II and III bikeways will increase the existing 22.2% of the City's 5100 acres devoted to streets, highways, and transportation. (Page 27 of the Plan.)
7. Additional striping of Class II and III bikeways will have an adverse visual impact.

C. Summary of Mitigation Measures:

1. Planned Mitigation Measures
 - a. Rules of bicycle safety are outlined on pages 31-34 of the Plan to reduce impacts of false security, parked car conflicts and intersection crossings. Education of motorists and bicyclists alike is strongly emphasized on page 34 of the Plan.
 - b. On-street parking will be removed providing an equal number of off-street spaces are available to absorb the reduction.
 - c. Bikeways in future development (page 27 of the Plan) are recommended Class I or Class II bikeways encouraging separation of bicyclist/pedestrian from vehicular traffic.
 - d. Properly located, graded and landscaped Class I bikeways will minimize microclimatic imperviousness and runoff impacts. (Pages 40-43 of the Plan.)
 - e. Page 58 of the Plan proposes sign clutter-mitigation by combining signs on existing posts, lowering sign heights and making their location

and design subject to review by City Architectural Review Committee.

D. Unavoidable Adverse Environmental Effects: The Plan objective "To make bicycling safer..." may never be 100% realized, meaning that implementation of the Plan will not reduce bicycle accidents in Monterey to zero (0). It may indeed have no short term affect on accidents due to the false security issue raised earlier at least until bicyclists and motorists become familiar with the new bikeways. The net long term result should be a reduction in bicycle accidents.

Sign clutter and additional striping is an unavoidable adverse environmental effect which also can only be minimized.

New bike routes and streets widened to accommodate bikeways will have an unavoidable adverse effect on additional City acreage devoted to streets, highways, and transportation.

E. Relationship of Short-Term Use to Long-Term Productivity: Class I bikeways will take land previously devoted to other uses, e.g., Southern Pacific Railroad right-of-way, or in new development. The railroad right-of-way would supplant one transportation mode with another. Unless the railroad initiates passenger service, bicyclists would replace rail freight transport. New development may take previously undeveloped land for bikeways. While this may cause some adverse environmental impact, the long term benefit may be in increased bikeway use and decreased automobile use. Class II and III bikeways would take land already devoted to transportation use, providing the long-term environmental benefits listed earlier.

F. Irreversible Environmental Changes: Materials used in construction, striping and signing of bikeways will be irreversibly consumed.

G. Growth Inducing Aspects of the Project: Other than resulting in a more comprehensively planned community, the Plan should have minimal direct growth inducing aspects. The encouragement of bikeways in new development should not solely induce new development nor should the need to link bikeways solely induce new development. Successful implementation of the Plan resulting in an environmentally enhanced City may indirectly foster economic growth in the City.

H. Alternatives:

1. No Project - This alternative would fail the objectives listed in the Plan (Page 11).

2. Alternative Modes - Use of automobiles, buses, and trains would preclude the beneficial impacts noted in Section IV of this EIR.
3. Alternative Routes - See pages 12-24 and Appendix C of the Plan.
4. Alternative Designs - See Plates 1-5 of the Plan, pages 45-53.
- I. Organizations and Persons Consulted:
See Appendix E of the Plan.



BIKEWAYS PLAN
CITY OF MONTEREY

I. INTRODUCTION

A. Purpose and Scope

This Bikeway Plan for the City of Monterey addresses the local recreation and transportation needs of the community and represents an important step toward the development of a comprehensive, multi-modal transportation plan for the City, as well as the Monterey Peninsula and County of Monterey.

The Plan has been prepared as an amendment to the Circulation Element of the City's General Plan, and should serve as a technical guide to: 1) coordinate bikeway construction with any alteration or reconstruction of the existing street system or recreational areas; and 2) encourage the logical extension of bikeways along new streets, recreation areas, and through new planned developments.

Section I of this report traces the brief history of the Bikeway Development Plan as it relates to the Monterey County Transportation Study (MCTS), formerly known as Salinas-Monterey Area Transportation Study (SMATS). Section II explains the approach used to obtain citizen involvement and the method used to evaluate tentative bikeways. Section III constitutes the Plan itself, emphasizing public safety regarding objectives and principles, and addressing the proper use of bikeways, possible state and federal sources of funding, and minimum design and construction standards. The last section, entitled "Phasing", recommends a Fiscal Year 1974-75 Pilot Program and presents an action program and preliminary cost estimates for bikeway construction in ensuing years.

B. Background

Recent History

Over the past few years, public interest in bicycling has been increasing on local, state and national levels, stimulated recently by the ecology movement and the energy crisis. In 1972, the SMATS Technical Coordinating Committee responded to this growing interest by adopting a position statement regarding the development of a bikeway plan to meet both recreation and transportation needs of bicyclists in Monterey County (See Appendix A). Final approval was given to the addition of a Bikeway Plan Development work item to the 1973 Work Program by an affirmative vote of the Policy Advisory Committee in February, 1973. Coordination of member jurisdictional plans to achieve



a unified county-wide bikeway plan was a responsibility delegated to the SMATS staff under the work item. Work began in August, 1973, and was scheduled for completion by December; however, it was soon realized that more time was needed to set priorities and to develop a system of bikeways which would be truly responsive to community needs.

SMATS Questionnaire

The SMATS staff was the first to make a county-wide effort to sample public opinion and to probe the needs and desires of bicyclists. In September, 1973, a bicycle user questionnaire was circulated to 90 schools and all known bicycle clubs and most shops in the County. The questionnaire was designed to provide information about bicycle user preferences, attitudes toward bicycling and kinds of trips made. Questionnaires were returned by La Mesa Village Elementary, Larkin School, Monte Vista Elementary, Colton Junior High, and Monterey Peninsula College; no response was received from local bicycle clubs and bicycle shops.

Analysis of questionnaire returns reveals that the 14 and under age group was oversampled, but some of the results were still valid and interesting to note. For instance, the questionnaire indicated that the 14 and under age group placed the highest importance upon bicycling as a form of transportation, followed by recreation and riding with their friends. Those responding in the 15 to 17 age group also placed highest importance on transportation, followed by recreation and exercise, as opposed to the 18 and over age group which placed highest importance on bicycling as a form of exercise, followed by recreation and environmental reasons. Most respondents indicated that from five to ten blocks (1/2 to 1 mile) was the maximum distance they would travel out of their way to use a bikeway if one were available. The general consensus among respondents was that people would use their bicycles more if it was safer to do so and that more people would ride bikes if paths were available. (See Appendix B.)

New Legislation

State legislators have been busy introducing and enacting legislation designed to cope with the great surge in bicycling with the least amount of problems and conflicts. Assemblyman Badham introduced AB 2213 in 1972, requiring bicycle dealers to license and register new and used bicycles sold by them in order to combat the alarming increase in bicycle thefts. Other bills introduced in the 1972 legislature ranged from the operation of bicycles upon a roadway (AB 493) to the call for preparation of a statewide plan for bikeways (SB 973).



The 1972 State Legislature responded to the growing enthusiasm for bicycling by actually enacting a record number of bicycle bills. The major provisions of the enacted bills are as follows:

- | | |
|------------------|---|
| SB 36 (Mills) | Allocates a minimum of \$360,000 annually from the State Highway Fund for the construction of bicycle facilities along state highway system, and \$30,000 per month from the gas taxes collected for cities and counties for construction of bicycle lanes along local streets and roads. |
| SB 147 (Mills) | Establishes a statewide standard of bicycle licensing; requires a unique serial number be stamped into each bicycle frame sold in California; authorizes use of the Department of Justice hot file for recovery of stolen bicycles. |
| AB 2213 (Badham) | Establishes a statewide system for the registration and licensing of bicycles, to be administered by the Department of Motor Vehicles. |
| AB 493 (Foran) | Directs bicyclists to ride as near the right curb or edge of the road as practical, except on one-way streets. |
| AB 494 (Foran) | Requires red reflectors on rear, sides and/or end of pedals on bicycle. |
| AB 495 (Foran) | Prohibits any person driving a motor vehicle from towing any person riding a bicycle. |
| SB 696 (Mills) | Directs State Transportation Board to study abandoned railroad rights-of-way for alternative transportation purposes. |
| SB 25 (Nejedly) | Specifies that any new Antioch Bridge constructed over the San Joaquin River include a pedestrian and bicycle lane. |
| AB 1101 (Dunlap) | Requires the use of only the type of grates which are not hazardous to bicycle riders on streets and highways where bicycling is permitted. |



- SB 1192 (Nejedly) Authorizes every local authority with police regulation powers to establish bicycle lanes by ordinance or resolution.
- AB 2096 (Foran) Allows local authorities to authorize the operation of bicycles and electric carts on public sidewalks for persons physically disabled.

C. Definitions

The definitions for terms appearing in this report are uniform and consistent with accepted definitions published in the Bikeway Development Plan, Monterey County Transportation Study.

THREE CLASSES OF BIKEWAYS:

- CLASS I: completely separated bike rights-of-way designated for the exclusive use of bicycles (bikepath).
- CLASS II: restricted rights-of-way, generally on the street alignment, and designated for the exclusive or semi-exclusive use of bicycles (bikelane).
- CLASS III: shared bikeways, designated as such only by signs or stencilled pavement markers.

BIKEWAY OR BIKEROUTE: A general term encompassing the three bike classifications stated above.

ALTERNATE BIKEROUTE: A potentially desirable alternate route whose construction is contingent upon a change in traffic direction, street widening or property conditions. An alternate route should be evaluated against its counterpart for selection of the single most desirable and appropriate route.

SIDEWALK BIKE PATH: A path within the street right-of-way which may be used by pedestrians as well as cyclists.

BICYCLE: A bicycle is a device upon which any person may ride, propelled by human power by a chain, belt, or gears, and having either 2 or 3 wheels in a tandem or tricycle arrangement. (State Veh. Code, Sec. 21200)





BIKEWAY ANALYSIS



II. BIKEWAY ANALYSIS

A tentative Bikeways Map was prepared in November, 1973, by the Planning Department and was subsequently reviewed by the Parks and Recreation and Public Works Departments. This Tentative Bikeways Map depicted proposed bikeways and scenic bikeways primarily on existing city streets. Tentative bikeways shown were based upon staff observation of existing bicycle flows and the objective of linking existing and proposed major public facilities, activity areas and scenic areas. The sole purpose of this map was to obtain citizen input and feedback at forthcoming community meetings. (See Appendix C.)

City staff continued their research of bikeway literature and reviewed the work of other communities. It was apparent that much field work remained to be done in assessing the physical adequacy of tentative bikeways and in confirming the observed bicycle user demand and characteristics. To aid in these tasks, citizen groups were formed for various districts of the City and a visual survey was conducted. The results of the survey were tabulated on two maps: a Bikeroute Inventory Map and a Bikeroute Problems Map. These maps were useful in evaluating the advantages and disadvantages of tentative bikeways, and in establishing realistic priorities commensurate with proposed funding.

A. Citizen Involvement

On January 24, 1974, the Planning, Parks and Recreation, and Public Works Departments jointly sponsored a community meeting at the El Estero Youth Center to discuss the Tentative Bikeways Map, distribute material on bikeways, and solicit citizen involvement and feedback. Approximately 45 citizens attended the meeting, representing a wide crosssection of the community including elementary, high school, and college students, bicycle club members, bicycle shop owners, and bicycle enthusiasts.

The major viewpoint expressed at the meeting was that the creation of bikeways (bikelanes in many instances) would make bicycling safer in the City. Equal emphasis was placed upon a stepped up bicycle education program to increase public awareness of laws, rights, and responsibilities pertaining to the bicyclist. Concern was expressed by attending expert bicyclists that bikeways might restrict the freedom of the bicyclist in two ways: 1) prevent bicyclists from riding city streets not designated as a bike route; and 2) prohibit the bicyclist from leaving a bikelane for desired turning movements.



Several persons attending the meeting expressed a desire to work under the direction of City staff in formulating a final bikeways plan for the City of Monterey. During the latter half of the meeting, five groups were formed to represent five areas of the City and a chairman volunteered to head each group. The names of the group chairmen and the areas chosen by each are as follows:

<u>Group #</u>	<u>Chairman</u>	<u>Area</u>
1	Wally Partymiller	New Monterey to Monterey Heights
2	Karla Raudstein	Monte Vista/Monte Regio
3	Dennis Kaysing	Downtown and Oak Grove
4	Jack Mellor	Del Monte and Oak Knoll
5	Daryl Hawkins	La Mesa to Fisherman's Flats

Citizen input continued to be solicited after this initial community meeting as staff members of the Planning and Parks and Recreation Departments met individually with elementary, high school, and college students on their respective campuses. A formal presentation of program developments was also made to about 40 members of the Velo Bicycle Club of Monterey at their February regular meeting. All of these meetings proved instrumental in obtaining volunteer help and tailoring a program which would respond to the actual needs of the bicycling public.

B. Visual Survey

During the month of March, the chairmen and group members conducted a visual survey of the tentative bikeways and recorded any problems or constraints posed by the route, such as poor condition of road shoulder, storm drain grate, or poor visibility at intersections. The group chairmen were also instructed to inventory route amenities, such as existing parking, destination points, route topography, and scenic and recreational qualities of the proposed route (See Exhibit B).

In an attempt to get some indication of the present usage of proposed routes, bicycle traffic counts were conducted at appropriate locations along the tentative bikeways. The counts taken by the citizen groups were invaluable in this respect. Counts on Del Monte reveal that an average of 15 bicycles per hour travel this street, with a high range of 20 to 30 on week-ends and during peak hours. Peak hour weekday counts on Aguajito Road indicate between 30 and 40 bicyclists per hour.





14. Existing Street Lighting Which Might Partially Illuminate Proposed Bikeway?

 yes no

15. Maintenance/Accessibility by City Mechanical Equipment: poor
 fair good

16. Traffic Count of Bicycles Using Existing Streets:

Time of Count: _____ to _____

Location: _____

#of Bicycles

Direction: _____

Count Taken By: _____

Time of Count: _____ to _____

Location: _____

of Bicycles

Direction: _____

Count Taken By: _____

Time of Count: _____ to _____

Location: _____

of Bicycles

Direction: _____

Count Taken By: _____

Bikeroute Inventory Map*

The Bikeroute Inventory Map, Exhibit C, provides information on existing conditions along the proposed routes. Information obtained on general topography, road shoulder widths, existing parking and auto speed limits constitute vital inputs into the design and class designation of a bikeway.

Bikeroute Problems Map*

The Bikeroute Problems Map, Exhibit D, records existing problems confronting bicyclists along the proposed routes. Problems such as storm drain grates and poor road shoulders should be corrected during bikeway construction and prior to bikeroute designation. Other problems listed, such as congested intersections and right turn only lanes, can be mitigated through public awareness and safety programs.

- * NOTE: Both the Bikeroute Inventory Map and Bikeroute Problems Map show possible alternate bikeways suggested by groups 1 and 3. These maps are available for review at the Monterey City Planning Department.





BIKEWAYS PLAN



III. BIKEWAYS PLAN

Recent trends confirm an increasing desire for bicycling as a means of recreation and transportation. Many City residents have indicated a desire to bicycle if it were safer to do so and if bikeways were provided. In as much as the circulation system of the City should be designed and specifically planned to serve the total transportation needs and desires of City residents, the Bikeway Plan is an important step toward the preparation of a comprehensive, multi-modal transportation plan for the City of Monterey.

A. Objectives

- To make bicycling safer for purposes of recreation and transportation.
- To develop a City bikeways system which will link with Peninsula and County bikeways to meet the needs of a wide range of bicycling enthusiasts.

Principles Relating to Bikeway Development

- (1) A system of bikeways should be established between major activity centers and points of destination, i.e., schools, libraries, public parks and recreation areas, employment centers, and scenic and historical places and buildings. An essential part of the bikeway system is the provision of lockable bicycle racks at major destination points. Both public and private agencies should be encouraged to install bicycle racks in accordance with this Plan.
- (2) Bikeways should be considered in the event of any alteration or reconstruction of existing City streets, parks or recreation areas. The logical extension of bikeways should be encouraged along new streets, park or recreation areas, and through new planned developments where such extension would further the objectives of the Bikeway Plan.
- (3) Wherever possible, bikeways should be located on collector streets with lower traffic volumes to minimize exhaust fumes and potential conflicts. There are exceptions, however, where a bikeway might follow a major thoroughfare for reasons of convenience and achieving continuity with an inter-city bikeway.
- (4) Exclusive Class I bikepaths should be considered whenever a special right-of-way is available, e.g.,



transmission line rights-of-way, Southern Pacific Railroad right-of-way, highway rights-of-way and parks. If such a right-of-way is unavailable, Class II bikelanes should be employed; and if there is insufficient paved width for the designation of bike-lanes, then signing should be utilized to maintain the integrity and continuity of the total bikeway system. In no event shall the designation of Class I, II or III bikeways prohibit the bicyclist from using other non-designated city streets; however, bicycles are prohibited on the Highway 1 Freeway between the Del Monte Avenue overcrossing and Munras Avenue, and through the Lighthouse Avenue tunnel.

- (5) This Bikeway Plan does not propose, advocate or authorize the designation of a sidewalk within a public right-of-way as a bikeroute.
- (6) The installation of a two-way bikelane, unseparated from the roadway within a given public right-of-way, is prohibited and shall not be encouraged as part of this Bikeway Plan.
- (7) Public awareness of bicycling laws and the proper use of bikeways should be expressed through proper signing of the bikeway and bicycle safety programs.
- (8) On narrow streets, the removal of some on-street parking may be necessary to achieve plan objectives and a higher level of safety in the bikeway system. Where bikeways require the removal of on-street parking in critically deficient parking areas, the removal of parking should be phased with provisions for new off-street parking. In the short run, bikeway signing only may be used for purposes of direction and route continuity.
- (9) All new bike routes shall be developed in accordance with the objectives, principles and design standards set forth in this Plan.

B. Description of Bikeways

More than twenty five (25) miles of bikeways are shown on the Bikeway Development Plan Map, Exhibit E, selected through cooperation and assistance of various student groups, cycling clubs, City staff, commissions and individual citizens. The majority of bikeways shown will use existing City streets (Class II and Class III types) and link activity areas and major destination points, such as schools, recreation areas, employment centers, etc. The selected routes contain sufficient variety and points of interest to insure repeated use, particularly with regard to the more scenic routes.



Some of the bikeways shown follow collector streets and major thoroughfares for efficient intra-city trips. Individual and group needs for longer recreational and sport riding trips are accommodated through City bikeways which connect with bikeways to be developed by the County and adjacent cities. The bikeways depicted on Exhibit E serve most residential neighborhoods, however, bikeway systems for individual neighborhoods are beyond the scope of this Plan.

Recreational Bikeways

Bikeways planned specifically for recreational purposes include:

HIGHWAY 68 (Monterey-Salinas Highway):

A Class II, rural bikeway which will link with the County's portion of the route and provide an important recreational route of intermediate length through an official State Scenic Corridor. If Highway 68 is widened to four-lanes then provision should be made for creation of a Class I, separated bikeway or the present road shoulder should be widened.

VETERAN'S PARK/SKYLINE DRIVE:

A beautiful ascending and descending route of relatively short length that offers a longer recreational option via Forest Ridge Road to Highway 68 (Holman Highway). Portions of the bikeway are to be developed as Class II and portions as Class III. An important destination point along this route is Veteran's Memorial Park which offers a variety of recreational opportunities, including picnicking, hiking, field games, vegetation study and camping. Magnificent vistas of Monterey and the Bay are prevalent farther up the route along Skyline Drive before the bicyclist makes a beautiful descent to Soledad Drive. Automobile traffic on this route is light.

Road shoulders in several places along Skyline Drive are rough and, in some instances, narrow through lower Veteran's Park. Road shoulders should be smoothed and/or widened, where appropriate, and kept clean of gravel and glass. Signing and pavement marking at sharp turns in Veteran's Park would help to caution auto traffic and reduce the potential for auto/bike conflicts. Signing should also caution bicyclists from zigzagging to climb steeper grades and suggest walking bicycles at such steep stretches.



SAND DUNES DRIVE:

A bikeway paralleling the proposed extension of Sand Dunes Drive was advocated on the Tentative Bikeways Map but dropped from the Bikeway Development Plan due to potentially severe maintenance problems associated with shifting dunes in the area.

JOSSELYN CANYON ROAD, ALTERNATE:

A scenic bikeway through a forested, passive setting which would function as an optional connector route between bikeways planned for Highway 68 and Mark Thomas Drive. However, this bikeway would also be an important spinal route serving Fisherman's Flats, Foothill School, and other existing and proposed residential development.

Narrow pavement width, loose gravel and no shoulder in some places makes signing only unacceptable for proper bikeway implementation. Bikeway construction for this route should meet minimum Class II standards, and the demand, physical and economic constraints diminish the likelihood of construction of this bikeway in the short run. In the long run, an increase in state or federal funding for bikeway construction would enhance the prospects for bikeway construction.

Recreation/Transportation Bikeways

Bikeways planned for both recreational and transportation purposes include:

DAVID AVENUE/PRESCOTT AVENUE COUPLET:

A Class III, one-way bikeway couplet possessing some scenic qualities and designed to direct through traffic to major east-west bikeways; David Avenue will function one-way westerly, and Prescott one-way northerly. Since David Avenue is narrow, the operation of a one-way system should ease the potential for auto/bike conflict on that street. Prescott is too steep to logically be used as a bikeway in a southerly direction, whereas, David Avenue is much easier to climb. Both streets have existing lighting. Traffic is moderate.

Existing on-street parking should be retained; where street widenings are planned along David Avenue, due consideration should be given to accommodating uphill bicycle



traffic. Correction should be made for all hazardous storm drain grates noted on the Bicycle Hazards Map.

DAVID AVENUE/PARCEL STREET/IRVING AVENUE, ALTERNATE:

This bikeway is a suggested alternate route to the David Avenue/Prescott Avenue one-way couplet. The bikeway would fulfill the same function, but be planned as a two-way, Class III bikeway. Some of the advantages include fewer stop signs, less traffic, and slower auto speeds. The disadvantages are more uncontrolled intersections and low route visibility.

Prior to final bikeway construction, the full range of advantages and disadvantages of this alternate route should be compared and contrasted with the David Avenue/Prescott Avenue couplet.

HIGH STREET/STILLWELL AVENUE/PINE STREET:

A Class III bikeway that will join the New Monterey neighborhood to Monterey Heights and direct and channel bicycle traffic to major east-west bikeways. More important, this bike route would link the Presidio to adjoining neighborhoods and the total bikeway system. This route is presently well traveled by bicyclists as it is relatively flat with good road shoulders. The streets are residential and feed Prescott, Franklin and Jefferson Streets; automobile traffic is light to moderate.

The route is partially illuminated at night by existing street lighting. Some excellent views of the Bay are afforded at several points along the route. Pine Street is the most narrow section of this planned bikeway, but the slow speed of automobiles along Pine minimizes the potential for auto/bike conflict. All existing on-street parking should be retained. The implementation of signing of this route will insure continuity of the total bikeway system and develop an awareness of the rules and regulations governing the operation of bicycles on city streets.



PACIFIC STREET/LIGHTHOUSE CURVE/FOAM STREET AND VAN BUREN/
LIGHTHOUSE CURVE/HAWTHORNE STREET COUPLET:

A Class III, one-way bikeway couplet which will function as the major east-west link between Cannery Row/New Monterey and Central/East Monterey. This bikeway will also make an important inter-city recreational connection with Pacific Grove's Ocean View Blvd. bikeway. The route is generally flat and is partially illuminated by existing City street lighting. This route enjoys good location with respect to major destinations and activity centers, including Cannery Row, Lighthouse Avenue commercial, Fisherman's Wharf, Custom House Plaza and Cultural/Convention Center, City Hall, Police and Fire Departments and the City Library.

The one-way couplet between the above mentioned streets represents long range desired bicycle flows consistent with long range transportation plans. Due to the higher auto traffic volumes expected on these streets, the creation of Class II bikelanes is considered desirable. The immediate creation of bikelanes may be infeasible, however, for portions of Hawthorne, Van Buren, and Pacific Streets due to existing on-street parking. Existing parking should be removed as permitted by the construction of new off-street replacement parking.

A Class I, one-way bikeway should be constructed on the north side of Lighthouse Curve through the vacated Army Warehouse parcel, contingent upon City purchase of said property. This route would accommodate safer bicycle movement past the difficult north side of Lighthouse Curve.

A connection to the Ocean View Boulevard bikeway should be made via a two-way bikeway on David Avenue between Hawthorne and Wave Streets.

FOAM STREET, ALTERNATE:

A Class III bikeway suggested as a possible interim route to the Pacific/Foam and Van Buren/Hawthorne Couplet. Construction of the one-way, bikeway couplet is contingent upon implementation of the vehicular couplet proposed in the 1964 Master Street Plan, by D.J. Faustman. Foam Street is a wide street which is regularly used by



bicyclists, and would still permit a good connection to the Ocean View Boulevard bikeway planned for Pacific Grove. The Class I bikeway north of Lighthouse Curve should still be constructed under this alternate route, and eastbound bicycle traffic on Foam Street should be directed to the south side of Lighthouse Curve.

LIGHTHOUSE AVENUE ALTERNATE:

An alternative to the Class III designation of Foam and Hawthorne Streets. Again contingent upon the Pacific/Foam and Van Buren/Hawthorne couplet, Lighthouse Avenue could accommodate bicycle traffic by reduction of vehicular travel lanes.

PACIFIC STREET/ELDORADO STREET:

A Class III bikeway which will direct bicycle traffic past the City library, Monterey High School, and the Cass Street medical district. Pacific Street between Madison and Eldorado Streets is a very pleasant, tree lined street which is frequently used by bicyclists. The street is relatively flat and wide and carries moderate to heavy traffic loads. Apart from a steep section adjoining Pacific, Eldorado Street slopes gently toward the east. The street is narrow, but widening is scheduled under the recommendations of the 1964 Master Street Plan, by D.J. Faustman.

At the time funds become available for widening of Eldorado Street, consideration should be given to implementation of this Class III bikeroute.

JEFFERSON STREET/PEARL STREET/THIRD STREET AND VAN BUREN/MADISON STREETS/POLK STREET:

This route is a valuable east-west route which is regularly used by bicyclists. With the exception of Jefferson Street, the route is flat and easy to negotiate. Vehicular traffic is moderate and the route is partially lighted by existing lighting. One of the problems with the route is narrowness at various points, for example, between Abrego and Alvarado Street and at the two bridges over El Estero Lake.

The City library, City Hall, Jacks Ball Park, El Estero Park, and the Youth Center are the more important destinations and recreation areas along this bikeway. The route makes equally important connections to Veteran's Memorial Park and the Naval Postgraduate School, and north-south lateral bikeways emanating from this spinal route provide easy access to the Presidio, Monterey High School, New Monterey, the wharf area, downtown, and Monterey Peninsula College.



In the vicinity of City Hall, bikeway movement will follow the recommended movement for vehicles. Jefferson Street will accommodate a two-way, Class III bikeway west of Pacific Street and Pearl Street will remain two-way except for that portion between Alvarado and Pacific Streets. With construction of the Van Buren and Pacific Street one-way couplet, a Class III (one-way) bikeway should be instituted on Van Buren Street to Madison Street, thence down Madison Street and Polk Street and back to a two-way bikeroute on Pearl Street beginning at the intersection of Polk and Pearl Streets. Removal of the existing eight parking spaces along the east side of Polk Street is recommended when permitted by the construction of off-street replacement parking. The similar removal of the existing twelve on-street parking spaces on the north side of Pearl Street between Abrego and Alvarado Streets would improve bicycle flow through central Monterey.

Sufficient width exists on Pearl Street between Camino El Estero and Camino Aguajito (with the exception of the bridges over El Estero Lake) for the construction of a Class II bikeway. Such designation will require widening of the Pearl Street shoulder through El Estero Park. If the Pearl Street bridges are widened, consideration should be given to bikeway accommodation. Also, provision should be made for the installation of lockable bicycle racks at Jack's Ball Park and at the El Estero Youth Center.

Third Street will be signed as a bikeroute for purposes of continuity. Despite the narrow width of Third Street, it carries light to moderate traffic and the frequent stops keep traffic speeds under 25 mph. Both autos and bicycles currently coexist well on this street.

DON DAHVEE PARK/ABREGO STREET/WASHINGTON STREET:

A short route that can be developed as one of the most unique bikeways in the community. The route will connect with a county bikeway over Carmel Hill and increase the bicycling opportunities available to local residents. The route is a major entrance to the City which passes a popular spot - the Del Monte Shopping Center. Equally important are the nearby motels which can provide overnight lodging to a growing number of touring bicyclists.

A two-way Class I bikeway through Don Dahvee Park will provide bicyclists with a pleasurable ride through a wooded



setting. The bikeroute should be of a meandering type and offer a variety of visual experiences.

Abrego and Washington Streets should be signed to carry through bicycle traffic to major destinations in the downtown and waterfront area and to major east-west bikeroutes.

IRIS CANYON ROAD/DON DAHVEE LANE:

A predominantly Class II bikeway serving to directly connect Monterey Peninsula College, Park Lane and the Del Monte Shopping Center to the City bikeway system. The route runs through the Iris Canyon greenbelt and is relatively flat except for a short climb up Don Dahvee Lane before crossing over to Del Monte Center. The greenbelt is a natural place for the installation of a bikeway and the route's rural, scenic qualities will offer variety and choice among other routes in the immediate vicinity. The speed of automobile traffic on Iris Canyon Road makes Class II advisable and, since paved shoulders on Iris Canyon are virtually nonexistent, some widening will be necessary if the minimum standards for a Class II bikeroute are to be met.

Don Dahvee Lane is a residential street carrying minimal traffic. Bikeroute signing only (Class III) will be adequate for directional purposes and assuring route continuity. At present, no improved connection exists between this area and Del Monte Center. The construction of a Class I bikeway between Don Dahvee Lane and the Center, as designated on the Bikeway Development Plan, Exhibit E, is strongly recommended. The connection shown on Exhibit E is currently a dirt path of approximately 250 feet in length.

Existing public ownership of most of the land on both sides of this route simplifies implementation. The route is a natural extension of the planned Don Dahvee Park bikeway and together they will afford a pleasurable means of circumventing the congested Munras Street and Fremont Avenue intersection.



AGUAJITO ROAD:

Aguajito Road is one of the most suitable of existing City streets for the creation of a Class II bikerooute. Traffic is light to moderate. The road shoulder is paved and wide and is regularly used by bicyclists commuting to and from the Navy Postgraduate School. The route's scenic qualities and minimum grade are further desirable characteristics of this route. Bicycle traffic counts indicate a present bicycle usage of between 30 and 50 bicycles during peak weekday hours (7:30 a.m. to 9:00 a.m.).

The width of the paved shoulder narrows between Mark Thomas Drive and Fremont Avenue and a Class III bikeway is recommended for this portion of Aguajito Road.

CAMINO AGUAJITO:

A Class III bikeway which will direct bicyclists to two major east-west bikeways: the Jefferson Street/Pearl Street/Third Street bikeway and the Del Monte Avenue bikeway. Auto traffic on Camino Aguajito is moderate, and frequent stops coupled with the street's short length reduce auto speeds. The route is particularly attractive and convenient for bicyclists desiring to make a Del Monte Avenue connection due to the existing stoplight at the intersection of Camino Aguajito and Del Monte Avenue.

Insufficient width dictates signing only for this bikerooute. However, future availability of funds may increase the feasibility of constructing a Class I bikeway through El Estero Park, parallel to the existing Camino Aguajito.

FREMONT AVENUE/CAMINO EL ESTERO, ALTERNATE:

A Class II bikeway that would primarily serve to direct bicycle traffic to the major Jefferson Street/Pearl Street bikeway. This alternate to the Camino Aguajito bikeway has several major disadvantages: 1) access/egress at Camino El Estero and Fremont Avenue; 2) merging traffic along Fremont Avenue; and 3) higher speeds of automobiles on Fremont Avenue. If these deficiencies are mitigated through future events, then this bikeway should be constructed in addition to the Camino Aguajito bikeway.



MARK THOMAS DRIVE/FAIRGROUNDS ROAD:

A Class II bikeway which is presently heavily traveled by bicyclists. The bikeway is a major east-west route which will carry bicyclists past the south side of the Navy School and the Highway 1 freeway. Construction of a Class II bikeway west of Josselyn Canyon Road will require a southerly displacement of the existing painted centerline and removal of approximately 30 on-street parking spaces in front of the Del Monte Hyatt. (The 30 parking spaces are not required for the operation of the adjoining uses.)

Auto traffic along this route is moderate, but heavy at times. Provision of designated lanes for bicycle travel will make bicycling much more comfortable, especially with regard to westbound bicycle traffic. Major destinations along the route include the Fairgrounds, Santa Catalina School, and Monterey Peninsula College.

GARDEN ROAD/OLMSTEAD ROAD:

This Class II bikeway makes an important connection with Highway 68, the airport and Del Monte Research Park, a major employment center. The State prohibits bicycles on Highway 68 west of Olmstead Road and the Olmstead/Garden Road route provides a suitable link to the City of Monterey bikeway system. Automobile traffic on Garden Road is light, most of which is destined for existing research firms or the airport.

Garden Road is well suited for the construction of a Class II bikeroute. There is ample paved width and the road shoulder is paved and in good condition. The route is gently rolling with good visibility. All parking is located in landscaped off-street parking areas, with the exception of some overspill on-street parking from the McGraw/Hill firm. With the completion of their new building, ample off-street parking should be available for both visitors and employees.

Road shoulders along that portion of Olmstead Road shown on Exhibit E are rough and generally in poor condition for the accommodation of bicycle traffic. This deficiency should be corrected at the time of route construction.



CASA VERDE WAY/ENCINA AVENUE:

A Class III bikeway that will provide the sole link between Del Monte Avenue and Fairgrounds Road. Insufficient width exists for the creation of a Class II bikeway, but signing is important particularly with respect to the Del Monte Elementary School children who ride their bicycles to and from school. Visibility at all intersections is good.

Encina Avenue is a flat residential street with light automobile traffic. Encina Avenue should be signed to accommodate bicycle flow to and from the Navy Post-graduate School, and the Little League Ball Park.

DEL MONTE AVENUE:

Bicycle traffic counts taken along Del Monte Avenue indicate that this route is presently the most heavily used in the City. Peak weekday traffic averages 10 to 15 bicycles per hour with peak weekend traffic reaching 30 to 40 bicycles per hour. Del Monte Avenue affords touring, recreational and commuting bicyclists with the most direct and non-stop route through the City, but not without presenting some existing problems.

Auto traffic along Del Monte Avenue is heavy and approaches speeds of 40 mph. The bicyclist can usually take refuge on the wide paved shoulders, but these virtually disappear at intersections providing special turning lanes, i.e., Casa Verde, Sloat Avenue, and Camino Aguajito. Compounding this problem of a narrowing shoulder at intersections is the existence of storm drain grates; grates presenting a problem to bicyclists should be corrected as an immediate step toward making this route safer for bicycle traffic. East of Camino El Estero, the paved width narrows to the point of impassibility for bicycles. The above mentioned problems are compounded with the influx of bicycle clubs and touring groups during the summer months.

Construction of a bikeway on or parallel to Del Monte Avenue should be given very high priority. Portions of this bike-route will be constructed to Class I standards, with the larger portion being constructed as a Class II bikeroute. The timing of various portions of this bikeroute is complex and contingent upon a number of future events. The



recommendations can best be described through listing from west to east:

- (1) Plan lines have been prepared for the widening of Del Monte Avenue and property on the north side of Del Monte between Washington and Figueroa Streets has been purchased. Widening of the first two blocks - Washington to Figueroa - is scheduled to begin in F.Y. 1975-76, if not sooner; thereafter, major widening will continue between Figueroa Street and Camino El Estero. Within this new right-of-way, consideration should be given to the construction of a Class I, two-way bikeroute on the north side of Del Monte Avenue between the area roughly bounded by Washington Street and Camino El Estero.
- (2) An excellent westerly continuation of this route would follow the south side of the railroad tracks past the Custom House; however, Southern Pacific has been unwavering in their regulations to prohibit public access over S.P.R.R. rights-of-way. If S.P.R.R. decides to permit access or relinquish that portion of their right-of-way, then continuation of this route should be pursued. In the interim period, the posting of the one-way roadway through the harbor parking lot for bicycles in both directions should be implemented as an alternate route. Future consideration should also be given to the possible exclusive use of the causeway by pedestrians and bicyclists.
- (3) West of Fisherman's Wharf and the Custom House, the existing municipal parking lot to the north of the Ginza Restaurant should be utilized to construct a bikeroute (Class II) as an interim measure. Bicyclists presently ride through this parking lot to gain access to Pacific Street and then on to Lighthouse Curve. Pacific should be signed with a "bicycle crossing" sign warning motorists to be aware of those bicyclists wishing to cross Pacific at this point; also, a reflective white crossing designation should be stenciled on the pavement from curb to curb. In the long run, future redevelopment of the surrounding area may require relocation of this connecting route to Scott Street.



- (4) A Class II bikeway should be implemented for the remainder of Del Monte Avenue between Camino El Estero and the eastern city limits. Problems of parking and narrowness currently exist on Del Monte Avenue with application of a Class II bikeway between Camino El Estero and Sloat Avenue. Consideration should be given to resolving these problems as a part of the extended Del Monte Avenue widening program. Sufficient width exists with a wide, paved shoulder on that portion of Del Monte Avenue running through the Navy Postgraduate School. Acorns dropped by the eucalyptus trees along this section of Del Monte Avenue present a problem to bicyclists and regular City street cleaning should include the paved shoulder.

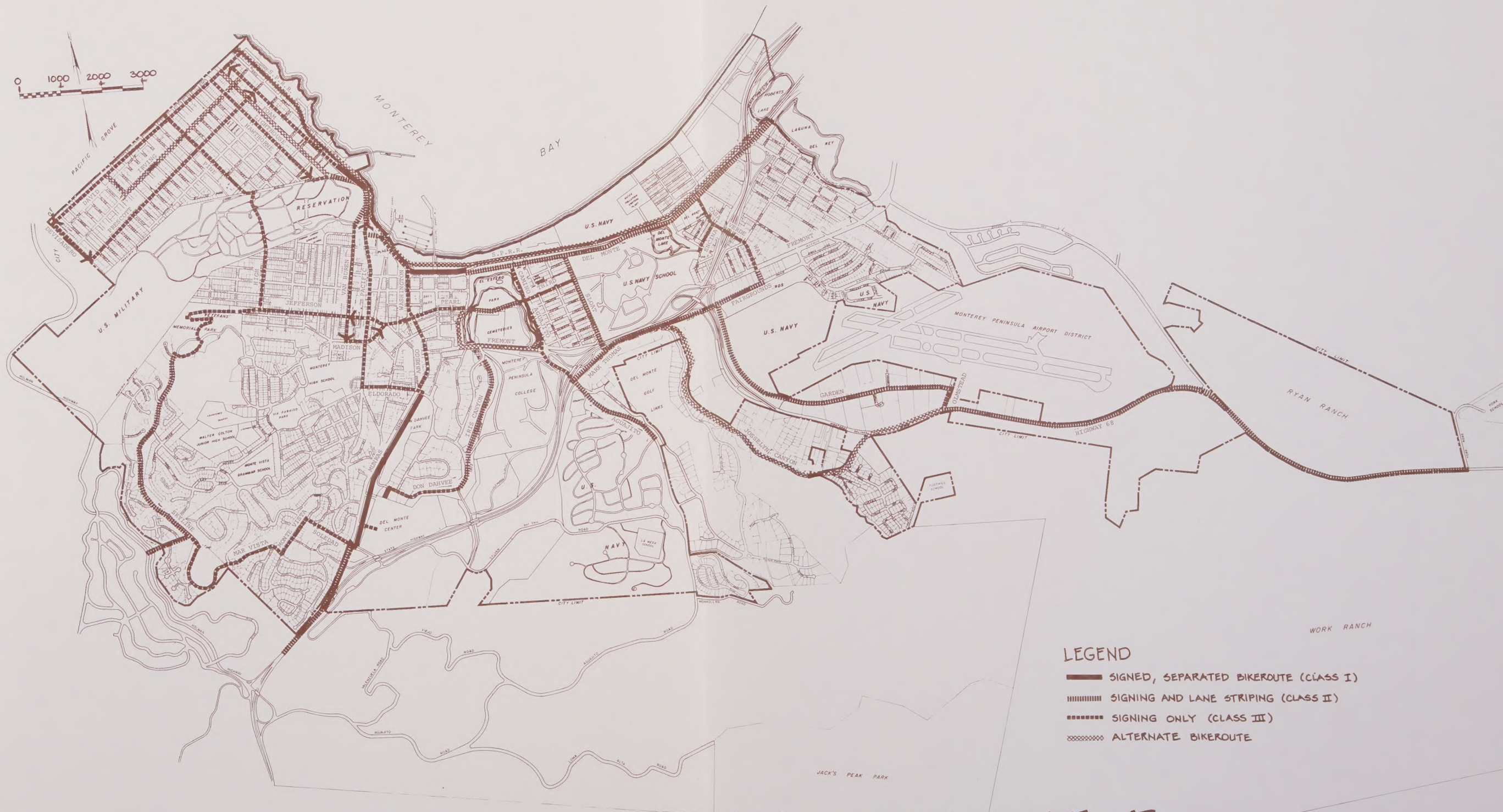
SOUTHERN PACIFIC RAILROAD RIGHT-OF-WAY, ALTERNATE:

The S.P.R.R. right-of-way offers a rare opportunity to construct an exclusive bikeroute (Class I) which could potentially become one of Monterey's noted recreational and scenic attractions. From east to west, the right-of-way passes by the sand dunes of east Monterey; the beautiful wooded and landscaped setting of the Navy Postgraduate School; the Monterey Harbor; historic Custom House and Fisherman's Wharf; a rugged section of Monterey's shoreline (Lighthouse Curve); and finally the canneries and warehouses of historic Cannery Row. The possibility of linking such a bikeroute with the shoreline route planned by Pacific Grove and the already existing Fort Ord/Marina bikeway would open up an approximate eighteen (18) miles of exclusive bikeway to meet both recreation and transportation needs of local residents and tourists.

Minimum grades, few intersections, good visibility and the above mentioned recreational and transportation benefits are factors associated with the S.P.R.R. right-of-way which make it a superior route for bicycle travel. However, if the Del Monte Express is revived, then the likelihood of construction of this bikeway east of the depot would be diminished.

In sum, the status of the S.P.R.R. right-of-way should be continually monitored, and any willingness on the part of the Southern Pacific Railroad Company to lease, sell or otherwise permit public access and usage of the S.P.R.R. right-of-way should be pursued by the City for the purposes of bikeway construction.





BIKEWAY DEVELOPMENT PLAN, EXHIBIT E

CITY OF MONTEREY PLANNING DEPARTMENT

JUNE, 1974



BIKEWAY DEVELOPMENT



Bicycle Parking

An important element of the total bikeway system is the provision of bicycle racks at major destination points and activity areas. The Bicycle Parking Map, Exhibit F, designates appropriate locations for the installation of bicycle parking facilities. Of interest is Appendix D of this report which gives an indication of the estimated usage at the Navy School. Both public and private agencies, alike, should be encouraged to provide bicycle racks in accordance with this Plan. Care should be given to the selection of racks which are unobtrusive and which blend well with the scale, colors, and materials of the surrounding area. The design, color, material and location of all bicycle racks should be reviewed by the Architectural Review Committee in keeping with established design review procedures for new street furniture in the City.

C. Bikeways Within Future Development

Thus far, this Bikeway Plan has addressed in detail the factors associated with implementation of bikeways using existing City streets. Since the physical pattern of future development is unknown, it is difficult to precisely delineate the type and alignment of future bikeways. Rather, the intent of this Plan is to offer objectives, principles, and minimum standards which apply equally to the construction of bikeways within existing as well as new development. In regard to the latter, however, it is appropriate to speak generally of desirable future extensions of the City bikeway system advocated in this Plan.

All new planned developments should make provisions for Class I or Class II bikeways. In larger planned residential developments emphasis should be placed upon complete separation of bicycle/pedestrian and vehicular traffic through the use of street undercrossings and overcrossings. This policy is particularly applicable to planning for the development of the Aguajito, Monterra, and similar projects adjoining Highway 68. Where appropriate and feasible, bikeways within new residential development should connect to the existing City bikeway system.

Consideration should also be given to the construction of bikeways along the planned extension of City streets, such as Foothill Road, Olmstead Road, etc., where such extension would further the objectives of this Bikeways Plan.





BICYCLE PARKING, EXHIBIT F

CITY OF MONTEREY PLANNING DEPARTMENT

MAY, 1974

D. Bicycle Path of History

Throughout the course of plan preparation, many suggestions were received in regard to the creation of a bikeway which would parallel the present "Path of History" - a "bicycle path of history", if you will. A check of the bikeways contained in this Plan against the Path of History route shows that the two systems are, in fact, contiguous at several points. Observation of that portion of the Path of History which is non-contiguous with the Bikeway Plan reveals problems of street narrowness, on-street parking, and complicated intersections.

Since the focus of this Plan is on a comprehensive, city-wide bikeway system and not on a particular neighborhood, district, or bikeway subsystem, the prospects for actual implementation of a "bicycle path of history" should be made the topic of a future special study.

E. Public Safety

According to the National Safety Council, thirty-one percent (31%) of bicycle accidents to school-aged children occur on a street between intersections, 16.8 percent on a sidewalk, 14.6 percent on a driveway and 11.6 percent at a street intersection. In some cases, these accidents are the fault of careless motorists, but in others, careless bicyclists are to blame. To this end, a major effort to increase public awareness of bicycle laws and proper riding techniques among all age groups is needed, and hopefully, the number and severity of bicycle accidents can be minimized in Monterey.

Bicycle Laws

The statistics on bicycle accidents reveal further that the majority of accidents occur in residential areas - often in the child's own neighborhood, an environment which most parents would consider safe for play. The accident hazard to adults, as well as children, has increased with the surge of interest in bicycling. There are many existing bicycle laws regulating the operation of a bicycle and knowledge of these laws prior to engaging in the activity could promote safer cycling.



The California Highway Patrol has published a pamphlet entitled, "Bicycle Laws", which explains the meaning of bicycle laws found under Article 4, Division II of the California Vehicle Code. (See Exhibit G.) Every bicycle owner and parents of children who ride a bicycle should familiarize themselves with these laws. The National Easter Seal Society, in cooperation with the National Safety Council and the Bicycle Institute of America, lists the following additional "rules for safe cycling":

- (1) Ride Defensively. Always be ready to yield the right-of-way: you'll never win in a contest with a car.
- (2) Always ride with traffic, never against it.
- (3) Ride in a straight line, single file.
- (4) Use hand signals. Hand signals should be made well in advance of slowing down, stopping or turning so that both hands are on the handlebars when the maneuver is made. If you are unsure of yourself, walk your bike across intersections.
- (5) Don't crowd between cars at stop signals or between a car and a curb. If traffic is heavy or there aren't any signals, get off and walk across the intersection. (See Bikeroute Design Standards, Plate 6.)
- (6) Keep a safe distance between you and the car ahead.
- (7) Expect the unexpected. Watch for parked cars pulling into traffic, car doors opening, pedestrians stepping off a curb into your path, bad storm drain grates, broken glass, etc.
- (8) Don't ride fast down hill.
- (9) Cross railroad tracks at a right angle to the direction of the tracks.
- (10) Be visible. Wear bright clothing during the day. At night, in addition to your required front light, reflectorized pedals, and rear reflector, white clothing and leg lights will increase your visibility.



BICYCLE LAWS

CVC SECTION NUMBER

21200 Every person riding a bicycle upon a roadway, has all the rights, and is subject to all the duties of the driver of an automobile. Some of these are stopping at stop signs, granting right of way to automobiles and pedestrians, stopping before crossing sidewalks, and stopping for "Stop" and "Go" lights.

21201(a) No person shall operate a bicycle on a roadway unless it is equipped with a brake which will enable the operator to make one braked wheel skid on dry, level, clean pavement.

21201(b) No person shall operate on the highway any bicycle equipped with handlebars so raised that the operator must elevate his hands above the level of his shoulders in order to grasp the normal steering grip area.

21201(c) No person shall operate upon any highway a bicycle which has been modified or altered in such a way as to cause the pedal in its lowermost position to be more than 12 inches above the ground.

21201(d) Every bicycle operated upon any highway during darkness shall be equipped with a lamp emitting a white light visible from a distance of 300 feet in front of the bicycle and with a red reflector on the rear of a type approved by the Department which shall be visible from a distance of 300 feet to the rear when directly in front of lawful upper beams of headlamps on a motor vehicle. A lamp emitting a red light visible from 300 feet to the rear may be used in addition to the red reflector.

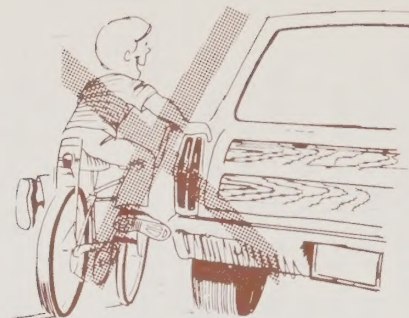
21202 Every person operating a bicycle upon a roadway shall ride as near the right-hand curb or edge of the roadway as practicable, exercising due care when passing a standing vehicle or one proceeding in the same direction. The only exception is when riding on a one-way street with two or more traffic lanes; then a bicycle may be operated as near the left-hand curb or edge of the roadway as practicable. This exception does not apply on divided highways where opposing traffic lanes are separated by a center strip, barrier or other divider.

21203 No person riding upon any bicycle, coaster, roller skates, sled or toy vehicle shall attach the same or himself to any street car or vehicle on the roadway.

21204(a) A person propelling a bicycle shall not ride other than upon or astride a permanent and regular seat attached thereto.

21204(b) No person operating a bicycle upon a highway shall permit any person to ride on the handlebars.

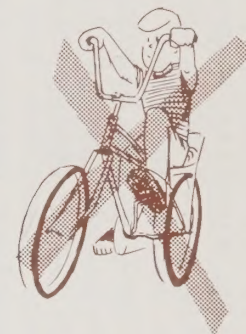
21205 No person operating a bicycle shall carry any packages, bundle or article which prevents the operator from keeping at least one hand upon the handlebars.



21203



21201(d)



21201(b)



21200



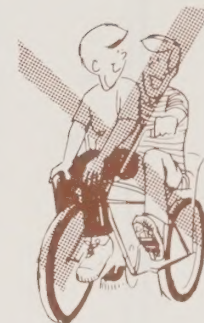
21202



21205



21201(c)



21204(b)

A word about bikeroutes planned for Monterey. The installation of bikeroutes should increase the motorist's awareness of bicyclists while decreasing the number of road hazards confronting the cyclist, but all of the aforementioned 10 rules for safe cycling must still be applied by the bicyclist. The safest bikeroute is the Class I, separated, asphalt bikepath. Class I bikeroutes work well in rural residential areas or planned communities, but they are sometimes too restrictive and often difficult to institute in older residential areas. The Class II bikeroute, or bikelane, and Class III bikeroute are somewhat less safe than the Class I bikeroute but they are still better than no designation at all. Advantages of Class II and III bikeroutes are: 1) they are physical reminders to motorists that bicycles are using the roadway; 2) they keep bicyclists to the right of the road and thereby provide for more efficient use of the roadway and improved traffic flow conditions; and 3) they provide guidance and direction for bicyclists.

The few streets in Monterey which have sufficient width to accommodate both parked cars and bikelanes should be used with caution. When riding these streets, the cyclist should watch for cars pulling in or out of parking spaces, car doors opening, and vehicles approaching from side streets much the same as if there was no bikeroute designation. An opening car door can usually be anticipated if the cyclist glances ahead at the parked cars to see if anyone is seated on the driver's side of the vehicle. The cyclist should slow down and should not swerve out into the vehicle travel lanes to avoid an opening car door without first checking traffic to the rear.

Bikelanes occurring on streets without parking are much easier to negotiate, but in no event should the bicyclist drop his defenses. The cyclist must always ride as if the motorist does not see him. The same applies for riding streets which are only signed as bikeroutes.

Safety Program

In October, 1973, Monterey's Police Chief formally announced the launching of a Bicycle Safety Program for Monterey. The new program is being implemented in an effort to encourage the safer use and operation of bicycles and to decrease the rising incidents of injury in bicycle accidents occurring in the City.

Working with schools, bicycle shops, and clubs, as well as service organizations, Monterey Police are conducting bicycle safety training programs. Booklets identifying bicycle safety



precautions are being distributed throughout the community. Also, a stepped-up enforcement program is in effect. The enforcement program includes:

- (1) Any bicyclist with a Driver's License, regardless of age, will be cited into court for traffic violations.
- (2) Any bicyclist without a Driver's License, if 18 or over, will be cited for traffic violations and be required to follow normal court procedures.
- (3) Bicyclists without a Driver's License, if under 18, will be cited for violations and formal notification of the violation will be presented to the violator's parents.

Suggestions for improving the depth and breadth of the Safety Program include: 1) required attendance at a bicycle safety class for the parent and the violator, when the violator is under 18 years of age; 2) formation of a ride-a-long program to teach children proper riding techniques; and 3) mandatory City bicycle licensing. Mandatory, enforced licensing programs have been effective in other communities and have proven useful for quick identification of the rider in emergency situations.

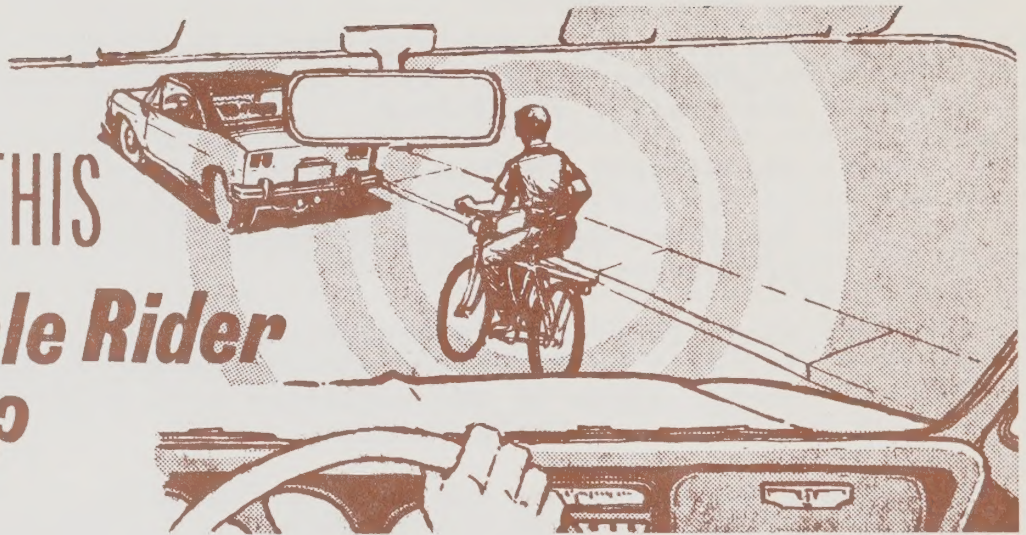
At the state level, minimal efforts are being made to increase driver awareness. The Monterey Police Department reports that in those cases where cars are at fault, it is typically because the driver fails to properly yield the right-of-way to the bicyclist. Exhibit H shows instructions given to motorists in a pamphlet distributed with vehicle registration renewal notices.

In sum, the continuation of safety and enforcement programs at all levels of government is a necessary adjunct to the provision of bikeroutes.



EXHIBIT H

WHAT WILL THIS *Bicycle Rider* Do ??



Will this bicycle rider swerve in front of you as he passes the parked car? You don't know - so slow down and keep your eyes on him.

Traffic is claiming the lives of up to 40 bicycle riders in California every three months. Hundreds - adults as well as children - are being badly hurt. Help stop this needless loss and suffering.

Bike riders move with traffic and have the same status as drivers of motor vehicles. BUT in collisions with cars they always lose. Drivers of motor vehicles must do their part to keep bike riders safe. Give them plenty of clearance when passing. Watch their movements, especially when they must pass parked cars.

TEN RULES FOR BIKE RIDERS: (1) obey traffic laws and signals - especially stop signs; (2) give hand signals when turning; (3) stay as near as possible to the edge or curb of the road; (4) ride single file; (5) walk across busy intersections; (6) never hitch rides on other vehicles; (7) keep at least one hand on the handlebars; (8) refuse handlebar rides to friends; (9) stay off freeways; (10) use lights and reflectors at night.

F. Sources of Funding

Three sources of funds for the construction of bikeways are explored in this section - federal, state and local. At present, the most expedient method of financing bikeway construction is at the local level, but priorities place certain limitations on expenditures in any one given year. The competition among cities for federal funds for the construction of bikeways is high, and the inherent delays and restrictions associated with the application for federal funds should be carefully evaluated. State funding of local bikeway construction is negligible, but the passage of new legislation on the horizon could make state monies one of the most attractive sources.

Federal

The Federal-Aid Highway Act of 1973 provides for the use of appropriated federal-aid highway funds for the construction of bicyclist and pedestrian facilities on a 70% federal and 30% state funding basis. Guidelines for the expenditure of federal-aid highway funds for bikeway construction place emphasis on separated bikeways and pedestrian walkways. Funding assistance for projects can be obtained through CALTRANS.

An alternate source of federal funds is the Land and Water Conservation Fund Act of 1965 of the Bureau of Outdoor Recreation (BOR). This act is administered through the State Department of Parks & Recreation and provides financial assistance to states and their political subdivisions for the acquisition and development of recreation areas and facilities. Funds available under the act can be used for the construction of bikeways, however, first priority is placed upon the construction of recreational bikeways. The local agency is expected to finance 100 percent of the entire project, 50 percent of which will be reimbursed upon project completion. Revenue-sharing monies may not be used as the local share of the project cost. The deadline for filing an application is July 1 for funds that will be available in the new fiscal year.

State

Senate Bill No. 36 was passed by the 1972 Legislature and became effective March 7, 1973. It established a "Bicycle Lane Account" which provides for a statewide annual minimum of \$360,000 for the construction of bikeways on City or County roads.



All bikeway projects are eligible under this program, but application for an allocation must be received by the State Department of Public Works on or before December 1 preceding the calendar year in which construction of the project is expected to commence. In the event that the number of eligible projects exceeds the funds available for a given fiscal year, funds will be allocated according to the following priorities:

1. First, to projects having a minimum of 50 percent federal participation in the project cost, and of these, in the following order of priority:
 - a. To projects where the bicycle facility and the roadway are separated.
 - b. To projects where the shoulder is widened and signed and striped for bicycles.
 - c. To all other projects not covered by a. or b.
2. Second, to projects having less than 50 percent federal participation in the project cost, and of these projects, in the same order of priority as specified for subdivision 1.
3. Third, to projects with no federal funds, and of these projects, in the same order of priority as specified for subdivision 1.

Two other bills that show greatest potential for assistance in bikeway construction is AB 1998 introduced into the 1973 Legislature by Assemblyman Ray E. Johnson, and SB 1642 introduced by Senator Petri. The Johnson bill would appropriate \$8 million from the Bagley Conservation Fund to the State Controller for the purposes of interest-free loans to cities, counties and special districts for acquisition and development of separated bicycle paths and routes under the Bicycle Recreation and Safety Act of 1971. Under this Act, the Controller would specify a period of time for the repayment of each loan relative to the amount of the loan and the time required by the city, county, or special district for repayment. The Petri bill would transfer \$10 million from the General Fund into a special Bikeway Account for allocation to cities and counties for the purposes of bikeway construction. S.B. 1642 would further enact the Bicycle Pathway Act, requiring DOT to establish uniform design standards and permitting local agencies to apply for funds to implement their adopted bikeway plans.



Local

Bicycle licensing fees, gas tax revenues, bond issues and donations of labor and materials by service clubs are several means of locally financing bikeway construction.

Based upon past experience, the use of bicycle licensing is probably the least feasible of the four methods. The City of Monterey Police Department abandoned the bicycle licensing program in 1973, after licensing less than 1500 bicycles for the 1972 calendar year at a fee of 25 cents per bicycle. Although the potential revenue looks good on paper - \$9,000 based upon a \$1.00 licensing fee and an estimated 9,000 bicycles in the City - the increased licensing fee would be prohibitive and discriminatory, not to mention the difficulties to be encountered in enforcing mandatory registration.

Under S.B. 325 and the Transportation and Development Act of 1971, 2% of the sales tax on gasoline is available for bike-route construction. The use of gas tax revenues to finance bikeway construction has considerable merit for reasons of expediency and flexibility, especially in cases where signing and lane striping only are necessary. Declining revenues due to the gas shortage may affect the amount of money available in the long run and thus affect local expenditure priorities. However Capital Improvements Program budgeting will assure that bikeway plan expenditures are related to the City's fiscal capabilities and long-run priorities.

A more comprehensive approach to financing bikeway construction involves a bond election and the issuance of municipal bonds. A bond issue would provide annual appropriations consistent with the City's program for phasing of bikeway construction. This method, of course, is contingent upon the prevailing public attitude toward bond issues.

Finally, local service clubs and organizations wanting to take the initiative to actually build a bikeway could be given that opportunity. Clubs and organizations wishing to construct all or a portion of a particular bikeroute should arrange a meeting with representatives of the Public Works, Planning, and Parks & Recreation Departments to discuss design standards and procedures.



G. Minimum Design Standards

Bikeroute Design Standards

The following minimum bikeroute design standards conform to the minimum standards for bikeways established by the Monterey County Transportation Study:

(1) Design Speed

The speed that a cyclist travels is dependent on the type of bicycle grades, surfacing, wind direction, and the physical condition of the cyclist. Whether the bikeway is used for recreation, commuting, or long distance touring will also affect proper choice of design speed. Due to the inherent instability of a bicycle, particularly when operated by an inexperienced rider on descending grades, one should not be overly conservative when choosing the design speed. The following design speeds are considered appropriate for the conditions noted:

<u>Conditions</u>	<u>Design Speed (mph)</u>
Urban (city streets, no separate bikeway).	15
Open country, level or undulating, separate facility in urban areas.	20
Hilly, long downgrades 5% or over.	30

(2) Sight Distance

Sight distance is the length of bikeway ahead visible to the rider, including intersecting roads and driveways. Sufficient sight distance must be provided so that the rider can either stop or take evasive action to avoid a collision when he comes upon an obstruction or another bicycle or vehicle, either at an intersection or along the bikeway. The following are the minimum stopping sight distances for various design speeds:

<u>Design Speed (mph)</u>	<u>Stopping Sight Distance (ft.)</u>
10	50
15	80
20	120
25	160
30	200



Stopping sight distance is measured from the rider's eyes which are assumed to be 4.0 feet above the pavement surface to an object 0.17 feet high on the bikeway.

(3) Horizontal Alignment

The minimum radius of curvature of horizontal curves must be consistent with design speed, safety, grade profile, type and use of facility, topography, and reasonable construction cost. The following is the minimum radius of curvature for specific design speeds based on speed alone:

<u>Design Speed (mph)</u>	<u>Minimum Radius (ft.)</u>
10	15
15	35
20	65
25	100
30	140

(4) Cross Section

The basic typical cross section for a Class I separate bikeway is an eight foot paved section within a fourteen foot graded area. This paved width is the desirable minimum for two-way use when traffic is considered to be light to moderate, however, a ten foot minimum is recommended when the traffic flow is heavy. Five feet is the minimum width for one-way travel, but may be impractical where maintenance vehicles must be accommodated. Where bicycle volumes are heavy or the facility must be shared with substantial numbers of pedestrians, an additional four feet of pavement may be provided. In some cases, where substantial pedestrian use is expected, a four foot graded area can be provided on one side for their use. However, if either bicycle or pedestrian traffic is heavy, each mode should be on a separate facility.

Separate bikeways along freeways should be clear of a thirty foot recovery area wherever feasible. Due to the hazards that physical barriers (guardrails, concrete walls, etc.) present to motor vehicle traffic, their use along bikeways should be restricted to situations where substantial problems to bicyclists may exist, such as where a two-way bicycle



facility is located adjacent to a motor vehicle lane on a curve. However, along freeways in particular, use of a fence to separate motor vehicle and bicycle traffic should be considered where the location of the bikeway is such that out-of-control or unwary cyclists may easily enter the traveled way of the highway. Wherever practical, the regular highway fence should be used for this purpose with the outside of the bikeway being unfenced.

The cross slope of a paved separate bikeway should be two percent. Maximum cross slope will be five percent.

Consideration should be given to the provision of simple rest stops and vista points where feasible along bikeways when such facilities are not otherwise available.

As indicated previously, use of the shoulder area of a highway is frequently the most practical means by which to establish a bikeway. A six-inch, reflective white stripe is recommended to separate the bikeway from the traveled way of the highway. (At the time of this writing, a lime green or pale green six-inch reflective line is being considered by the City as a substitute for standard white.) Deliberate measures should be undertaken to ensure that the surface of the bikeway is maintained in a smooth condition free of broken glass and other debris. Drainage inlet grates, manhole covers, etc., should be designed and installed in such a manner as not to present a problem to cyclists. (See Plates 1 through 4.)

(5) Clearances

The desirable minimum lateral clearance to obstructions from the edge of pavement of a bikeway is three feet. The minimum overhead clearance to overhead obstructions will be 8.2 feet.

(6) Grades

Cyclist characteristics (age, weight, conditioning, oxygen intake, etc.), bicycle characteristics (gear ratios, type of bicycle, tires, weight, etc.), wind velocity, air resistance, and the road surface are major determinants of the maximum acceptable gradient



and length of a bikeway grade. In general, the maximum grade rate should be five percent. Steeper grades can be tolerated for special conditions and short sections. Grades over 1,000 feet long should be kept at five percent or less. On long sustained grades, and at crests thereon, level areas adjacent to the bikeway should be provided for rest stops.

(7) Structures

Existing bridges may be widened to accommodate bikeways, or if wide enough already, the shoulders may be used for a one-way bikeway of the same width as the approaching bikeway. On long structures and where the bikeway is two-way, a physical barrier will usually be required, particularly if motor vehicle and bicycle traffic are heavy. On short bridges with light motor vehicle and bicycle traffic, painted stripes will normally suffice.

Overcrossing structures for bikeway traffic only should conform to the State Department of Transportation standard pedestrian overcrossing design loading. The basic minimum width will be that of the approaching bikeway. If significant pedestrian traffic will use the structure, an additional width of four feet will usually be required.

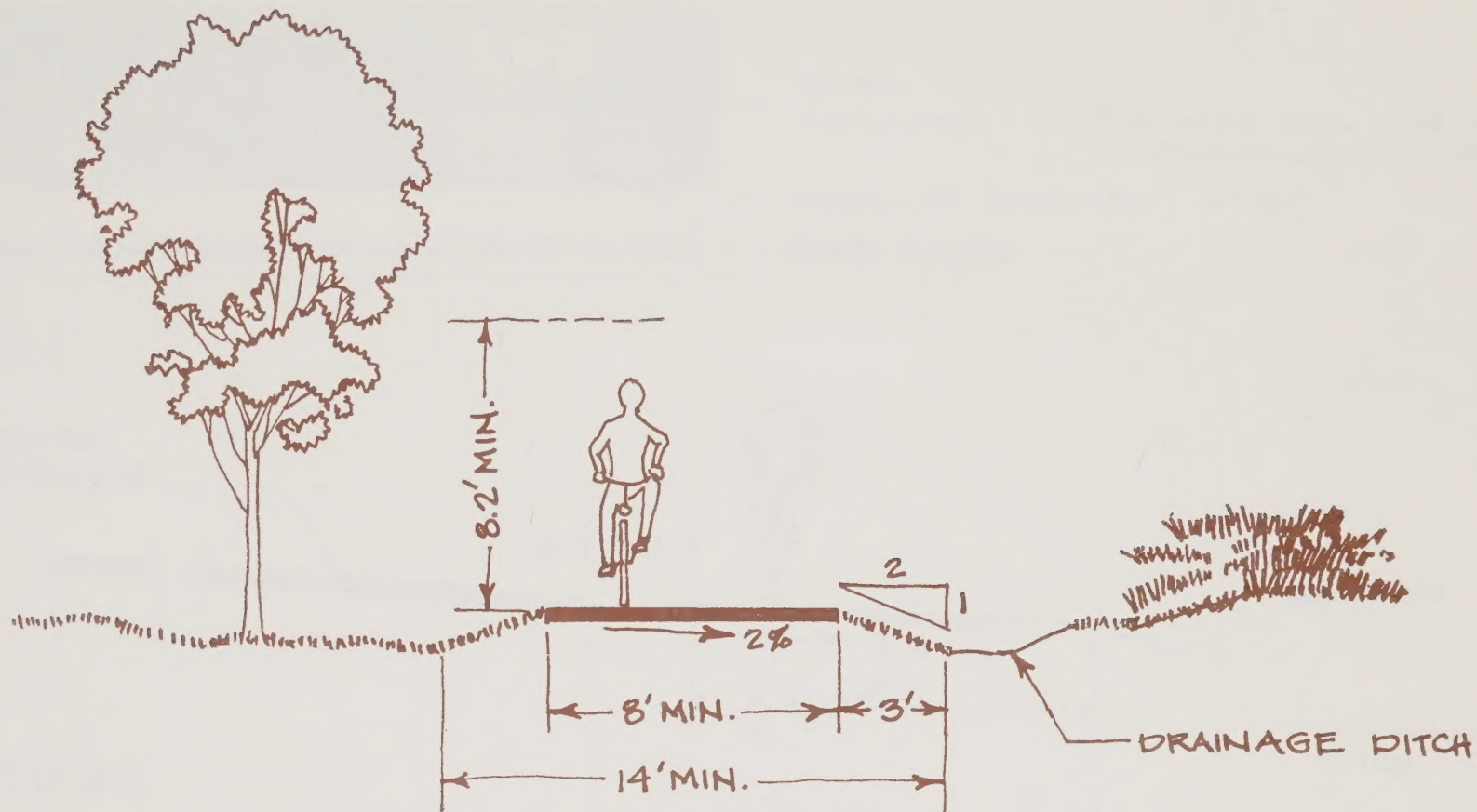
(8) Structural Section

Basic bikeway structural section criteria are that the section should be adequate to support the wheel loads of bicycles and light maintenance vehicles. A traffic index of two is suitable for use on most bikeways.

Asphalt concrete should be used due to its low cost, long life, smooth surface, and ease of maintenance. A Type B one-half inch maximum mixture laid with an asphalt paver should be specified. The asphalt content should be one percent higher than that normally used on highway paving projects.

For all but the poorest quality basement soils (R-value less than 5), 0.25 foot thick asphalt concrete placed directly on a prepared subgrade of basement soil is considered adequate.

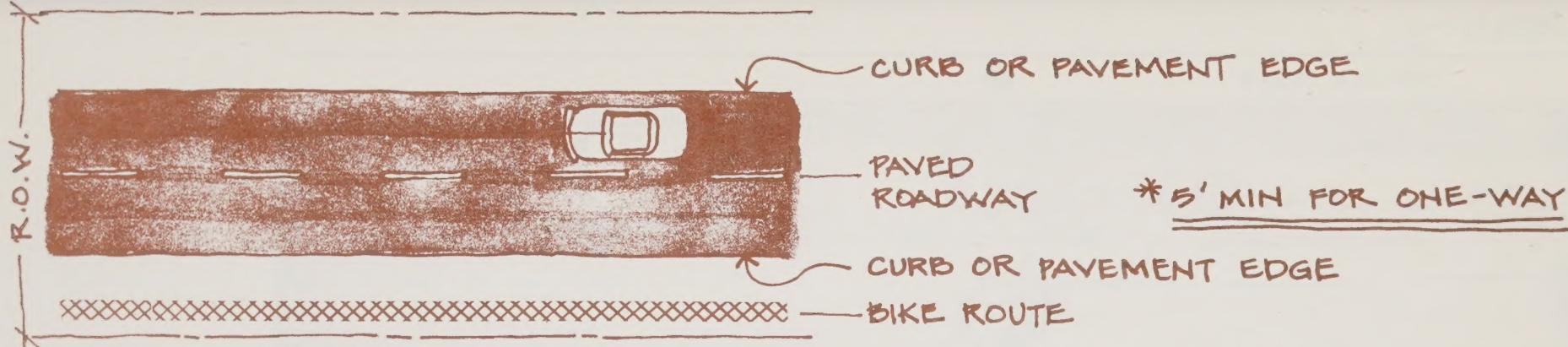




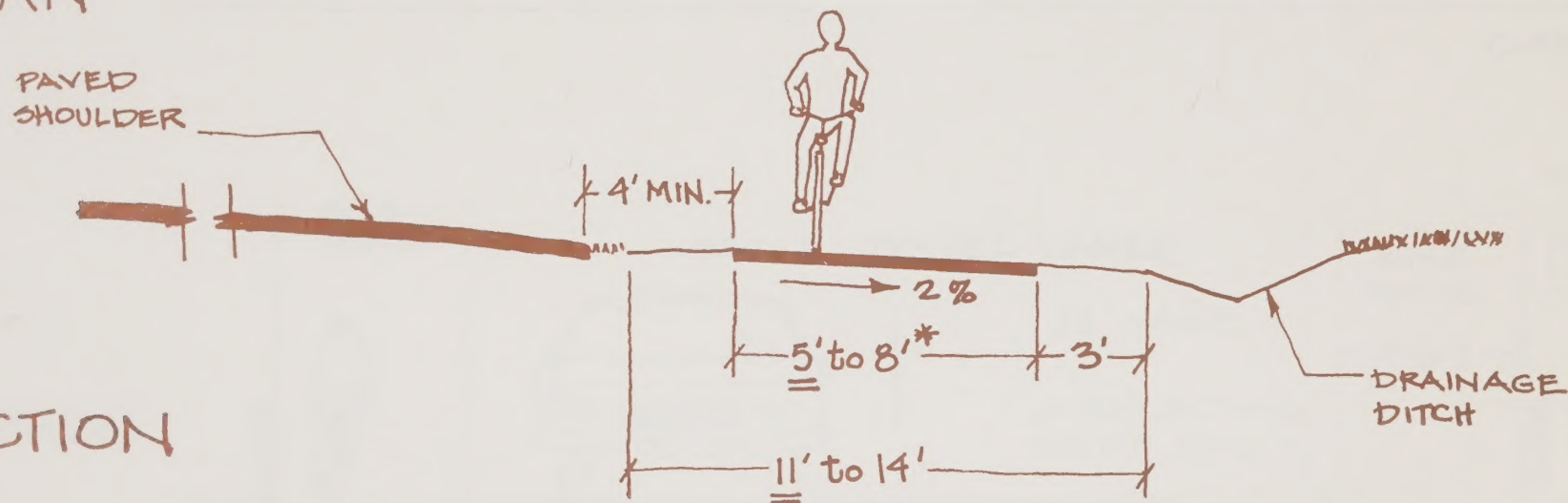
CLASS
I

TYPE
A

EXCLUSIVE BIKE ROUTE, SEPARATED
RIGHT-OF-WAY PLATE **I**



o PLAN



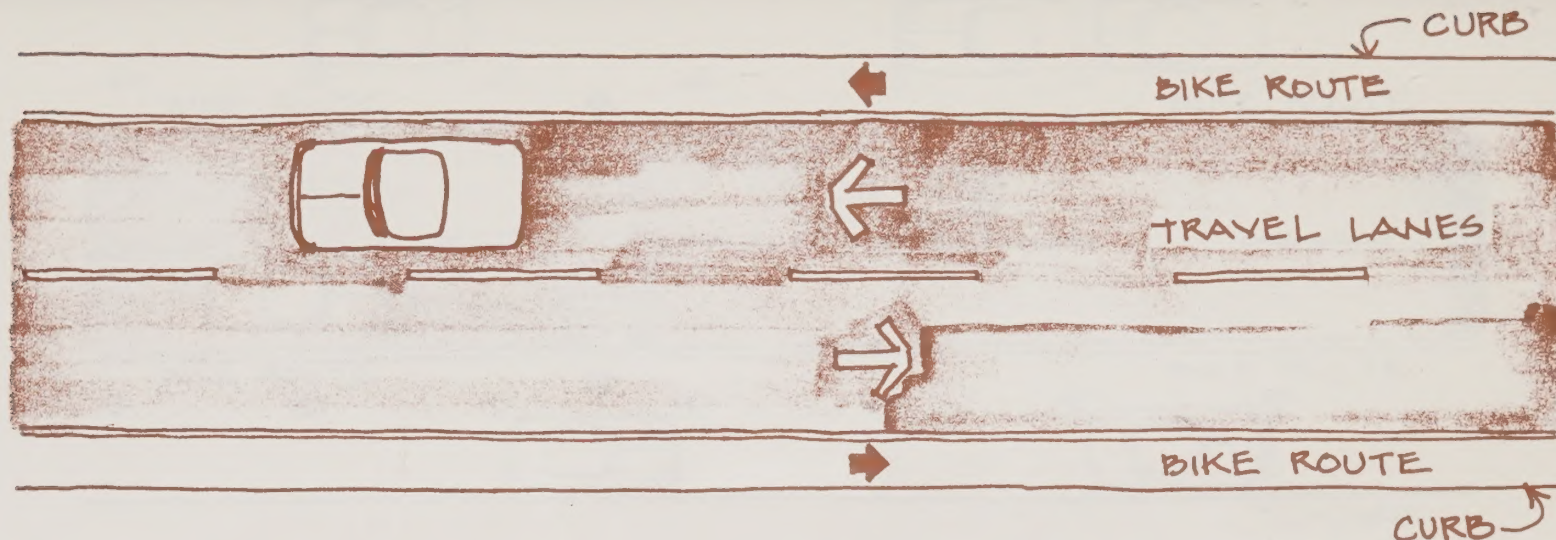
o SECTION

CLASS
I

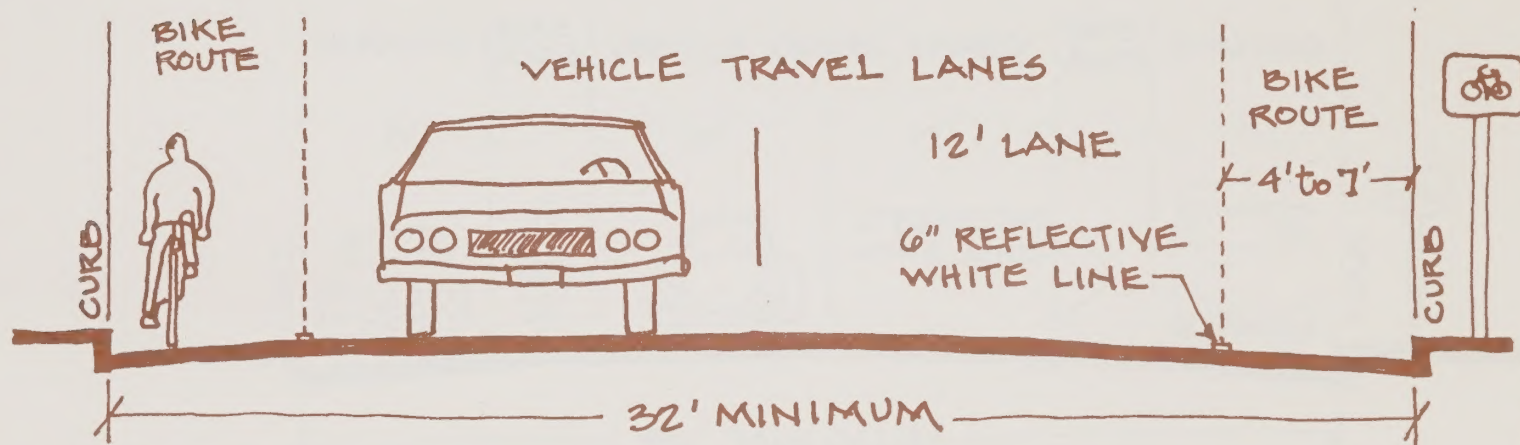
TYPE
B

EXCLUSIVE BIKE ROUTE, SHARED
HIGHWAY RIGHT-OF-WAY PLATE **2**

◦ PLAN



◦ SECTION



Page 49

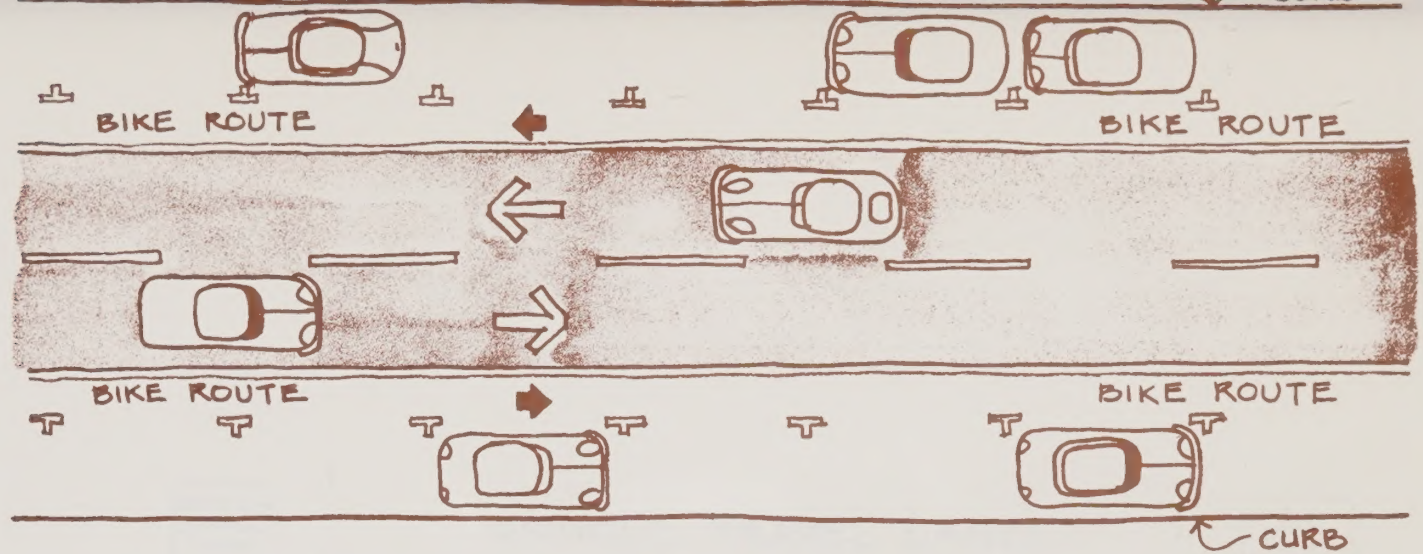
CLASS
II

TYPE
A

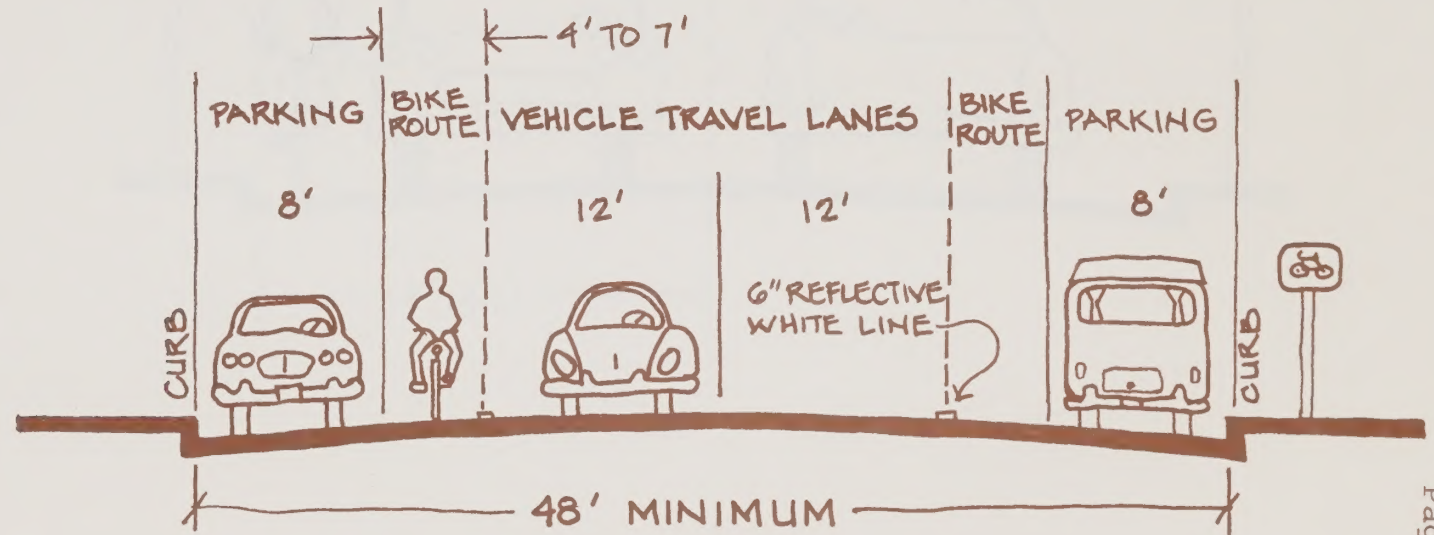
TWO-WAY BIKE ROUTE ,
NO PARKING

PLATE **3**

◦ PLAN



◦ SECTION



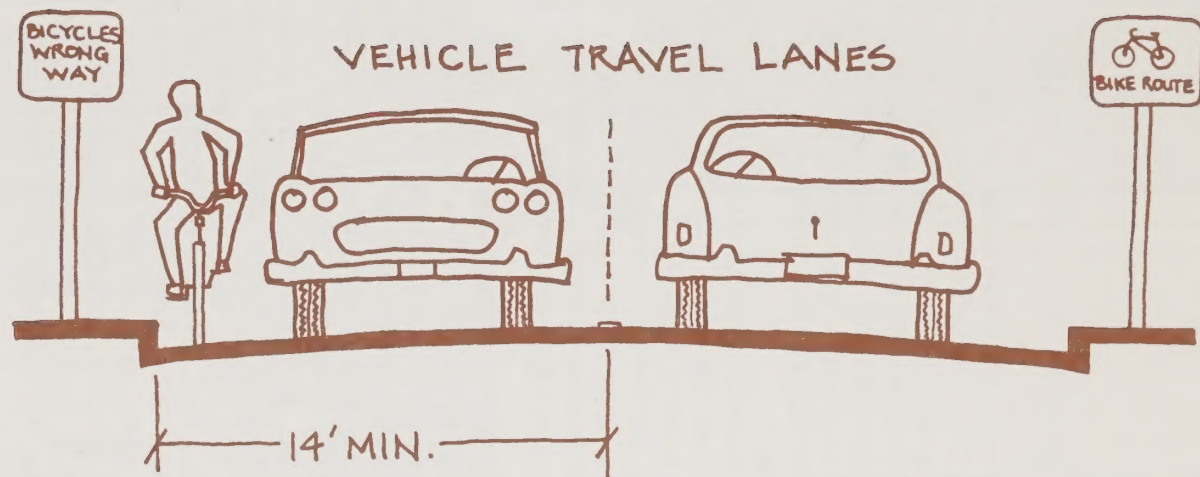
CLASS
II

TYPE
B

TWO-WAY BIKE ROUTE ,
WITH PARKING

PLATE 4

◦ SECTION



CLASS
III

TYPE
A

TWO-WAY BIKE ROUTE ,
SIGNING ONLY

PLATE 5

(9) Intersections

For bikeways on existing street and highway systems, particularly in urban areas, street intersections pose critical bikeway design problems. Many car-bicycle accidents occur at these locations. Especially prevalent are those types of accidents involving straight-through bicycle traffic and right-turning motorist movements.

The left-turning bicyclist also presents a significant problem as the bikeway is on the right side of the street and the bicyclist can conflict with cars traveling in both directions. It is usually unacceptable for two-way bikeways to enter street and highway intersections, as potential conflicts and confusion become excessive.

Plate 6 shows recommended bicycle movements in an intersection area. The bikeway striping is terminated about 100 feet from the intersection. Then the right-turning car can get into the proper position for a right turn and right-turning cyclist can mingle with the cars for this maneuver, with each consciously adjusting to the presence of the other. Left-turning cyclists should be encouraged to walk bicycles through the intersection to the far curb, turn left, and await an opportunity to cross the street they are leaving. (This, of course, does not preclude the option of a cyclist's mingling with other vehicular traffic and following the normal course of a motor vehicle in a left-turn movement where this is within the cyclist's capabilities.)



Standard Signing and Pavement Stenciling

The following standard signing is recommended for installation along City bikeways to promote uniformity and increase observer comprehension.

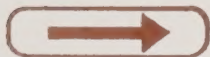
- (1) BIKE ROUTE: a nationally approved sign for marking an officially designated bikeroute. The sign is taken from the 1971 Manual on Uniform Traffic Control Devices and consists of a bicycle symbol, the words "Bike Route" in 3 inch white letters on a green background. This sign should be used for designating Class I, II, or III bikeways.

Where appropriate, a directional arrow may be placed below the Bike Route sign. The arrow and border are white on a green background.

- (2) BIKE XING: a nationally approved sign for placement on a street or highway in advance of a point where an officially designated bikeroute crosses the street or highway; this situation typically occurs between intersections. The bicycle symbol and border are black on a yellow background and the sign is mounted in diamond fashion. Beneath the diamond appears the words "Bike Xing" on a 18 inch by 24 inch sign. This sign is a warning sign and is reflectorized to be effective at night.
- (3) NO BICYCLES: an international sign used to post areas where bicycles are prohibited. The sign consists of a square upper plate measuring 24 inches by 24 inches with a black symbol circumscribed by a slashed red prohibitory circle. The lower plaque reads "No Bicycles" on 24 inches by 18 inches; both signs have a black border on a white background.
- (4) BICYCLES WRONG WAY: a specially made sign measuring 24 inches by 18 inches to be mounted on the reverse side of all Bike Route Signs (item 1). This sign is a suggested means of improving rider awareness of bicycle laws and the correct way of using designated bikeroutes. The letters and border are printed in red on a white background.
- (5) BEGIN BIKEROUTE: a specially made sign to be mounted above the standard Bike Route sign in places where the beginning of a bikeroute is not clearly distinguishable. Letters and border are black on a white background.



(1)



24" x 18"
24" x 6"

(2)



30" x 30"
24" x 18"

(3)



24" x 24"
24" x 18"

(4)



24" x 18"

(5)



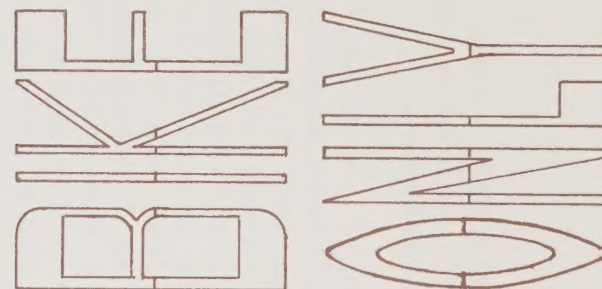
24" x 18"

(6)



24" x 18"

(7)



48" x 24"

CLASS
I, II, III

BIKEROUTE SIGNING

PLATE 7

- (6) END BIKEROUTE: same as (5), except to be used where the end of a bikeroute is not clearly distinguishable.
- (7) BIKE ONLY: a stencil utilized in Davis, California, to supplement standard route and warning signs. When painted at interfaces of the bikeroute with street intersections, the "Bike Only" stencil reinforces the Bike Route sign and conveys the fact that not only are bikes to be expected along the bikeway route, they are the only through traffic permitted within that designated portion of the street right-of-way. The words "Bike" and "Only" are 2 foot high, reflectorized and elongated letters, separated by a 3 foot space and are somewhat smaller than the 4 foot high letters used in Davis. A 5 foot long arrow may be added which specifies the direction of travel on the bikeroute.

All signs should be well placed and, where possible, multiple use of existing posts should be encouraged as a means of diminishing visual clutter. The mounting height of signs shall be 8 feet minimum in conformance with City standards, except that a lower height may be approved for Class I bikeroutes and in other special cases. Bikeroute stenciling for Class II bikeroutes shall be spaced a minimum of 300 feet apart with larger spacing desirable along rural streets and highways. The location of all signs and bikeroute stenciling, including sign post material, size, color and height, shall be subject to review by the Architectural Review Committee and the Department of Public Works.





PHASING



IV. PHASING

A. F.Y. 1974-1975 Pilot Program

In April of 1974, the Traffic Committee reviewed the latest developments in the bikeway program and asked that a pilot program for Aguajito Road and Mark Thomas Drive be explored in an attempt to get a portion of the Plan implemented during fiscal year 1974-75.

The proposed pilot or first-year program consists of a 1.6 mile bikeroute. Bike lanes will accommodate bicyclists in both directions along Aguajito Road, between Farragut Road and Mark Thomas Drive; along Mark Thomas Drive between Aguajito Road and Josselyn Canyon Road; and along Sloat Avenue between Mark Thomas Drive and Del Monte Avenue. Bikeroute signing is suggested for Aguajito Road, between Mark Thomas Drive and Fremont Avenue.

Pavement widening will not be necessary on any of the above mentioned streets. The actual paved width along Aguajito Road varies between 38' 6" and 39' 6", which would be ample width for two 12'-14' travel lanes and two 5 foot bike lanes. The actual paved width along Mark Thomas Drive is constant at 32 feet, providing width enough for two 12-foot travel lanes and two minimum 4-foot bike lanes. However, it is recommended that the painted yellow centerline on Mark Thomas Drive be removed and replaced about $\pm$ 8 feet towards the south right-of-way line; the 30 on-street parking spaces on the south side of Mark Thomas should then be eliminated. (This parking is used only sporadically and is not calculated as part of the required parking spaces for the surrounding uses.) The constant 48-foot width along Sloat Avenue is sufficient for two 12-foot travel lanes, two 4-foot bike lanes and the retention of the 8-foot parallel parking on both sides of the street. The outside travel lane along Aguajito Road, between Mark Thomas Drive and Fremont Avenue, is 14-feet wide and meets the minimum requirements for the creation of a Class III bikeway. One final item that possibly could be handled in F.Y. 1974-75 is the posting of the causeway for bicycle access through the harbor parking lot. Estimated maximum cost is \$62.00 for two signs, posts, and brackets.

Following is a preliminary cost estimate for the implementation of this first-year program. Cost estimates have been formulated by the Public Works Department; a 10% inflation and 10% interest allowance has been added over and above the calculated material costs. Cost estimates do not include City labor costs. The total pilot program expenditure of \$4,375.20 will be included in the



City's proposed budget for F.Y. 1974-75. The use of gas tax monies is the proposed method of funding construction of the pilot program described above. Therefore, City Council approval of the proposed F.Y. 1974-75 budget and all its contents will authorize expenditure of gas tax money to finance construction of bikeroutes under the pilot program.

BIKEWAY PILOT PROGRAM
F.Y. 1974-75
PRELIMINARY COST ESTIMATE OUTLINE

I. Aguajito Road (Mark Thomas Drive to Farragut Road)

	<u>Item</u>	<u>Unit</u>	<u>Cost/Unit</u>	<u>Total</u>
1.	6" white line (reflective)	4,875 lin. ft.	\$.06/lin.ft.	\$ 292.50
2.	"Bike Lane" sign, post & bracket	4	\$31.00 ea.	124.00
3.	"Bicycles Wrong Way" sign & bracket	4	\$15.00 ea.	60.00
4.	Storm drain grate correction	5	\$75.00 ea.	<u>375.00</u>
			Subtotal (I)	\$ 851.50

II. Mark Thomas Drive (Aguajito Road to Sylvan Road)

1.	6" white line (reflective)	5,250	\$.06/lin.ft.	\$ 315.00
2.	"Bike Route" sign, post & bracket	5	\$31.00 ea.	155.00
3.	"Bicycles Wrong Way" sign & bracket	5	\$15.00 ea.	75.00
4.	"No Parking Anytime" sign & bracket	5	\$15.00 ea.	75.00



Continued -
 II. Mark Thomas Drive (Aguajito Road to Josselyn Canyon)

<u>Item</u>	<u>Unit</u>	<u>Cost/Unit</u>	<u>Total</u>
5. Centerline removal	1 mile	\$880/mile	\$ 880.00
6. Replace dashed yellow centerline	5,250 lin. ft.	\$.06/lin.ft.	<u>315.00</u>
		Subtotal (II)	\$1,815.00

III. Sloat Avenue

1. 6" white line (reflective)	3,900 lin. ft.	\$.06/lin.ft.	\$ 234.00
2. "Bike Route" sign, post & bracket	9	\$31.00 ea.	279.00
3. "Bicycles Wrong Way" sign & bracket	8	\$15.00 ea.	120.00
4. Storm drain grate	2	\$75.00 ea.	<u>150.00</u>
		Subtotal (III)	\$ 783.00

IV. Aguajito Road (Mark Thomas Drive to Fremont Street)

1. "Bike Route" sign, post & bracket	4	\$31.00 ea.	\$ 124.00
2. "Bicycles Wrong Way" sign & bracket	4	\$15.00 ea.	<u>60.00</u>
		Subtotal (IV)	\$ 184.00

TOTAL CONSTRUCTION COST (I+II+III+IV)	\$3,633.50
10% interest plus 10% inflation	<u>741.70</u>
GRAND TOTAL	<u><u>\$4,375.20</u></u>



V. Installation of Causeway Sign

	<u>Item</u>	<u>Unit</u>	<u>Cost/Unit</u>	<u>Total</u>
1.	"Bike Route" sign, post & bracket	2	\$31.00 ea.	\$ 62.00

Note: Estimated unit cost of signs does not include
\$12.50 labor cost per sign.

B. Suggested Programmed Expenditures, F.Y. 1974-1979

The following recommended phasing schedule for bikeroute construction is consistent with the timing schedule for street alterations and new development. A listing of planned bike-routes and estimated construction costs appears below, followed by a table of planned Capital Improvements Program expenditures over the next five fiscal years.

PRELIMINARY
CONSTRUCTION COST ESTIMATES

BIKEROUTE NO.	CLASS	LENGTH (lin.ft.)	ESTIMATED COST
1. Aguajito Road, south of Mark Thomas Drive to Farragut Road	II	4,875	\$1,025.00
2. Aguajito Road, north of Mark Thomas Drive to Fremont Avenue	III	2,025	225.00
3. Mark Thomas Drive from Aguajito Road to Josselyn Canyon Road	II	5,250	2,175.00
4. Sloat Avenue	II	3,900	950.00
5. David Avenue/ Prescott Avenue One-way Bikeroute Couplet	III	13,000	2,200.00
6. Van Buren/Hawthorne & Pacific/Foam One- way couplet	I,II, III	17,750	4,750.00
7. Pacific/Eldorado	III	4,800	800.00



BIKEROUTE NO.	CLASS	LENGTH (lin.ft.)	ESTIMATED COST
8. High Street/Pine St.	III	12,000	\$ 2,025.00
9. Jefferson Street, west of Pacific	III	6,750	1,150.00
10. Polk Street/Pearl Street one-way couplet	III	1,200	200.00
11. Pearl Street, east of Alvarado	II,III	6,900	1,300.00
12. Third Street	III	2,400	400.00
13. Skyline Drive/Mar Vista Dr./Soledad	II,III	25,000	5,300.00
14. Don Dahvee Park	I	5,500	9,000.00
15. Abrego/Washington	III	3,300	550.00
16. Don Dahvee Lane/ Iris Canyon Road	I,II, III	10,300	2,925.00
17. Camino Aguajito	III	4,300	725.00
18. Del Monte Avenue, from Washington St. to Figueroa, and past Custom House	I,III	1,725	1,675.00
19. Custom House/Fish- erman's Wharf to Pacific Street	II	900	250.00
20. Del Monte Avenue, east of Figueroa	I,II	18,600	6,200.00
21. Mark Thomas Drive/ Fairgrounds Road, east of Josselyn Canyon	II	5,700	1,575.00
22. Garden Road/ Olmstead Road	II	15,000	4,150.00



BIKEROUTE NO.	CLASS	LENGTH (lin.ft.)	ESTIMATED COST
23. Highway 68, east of Olmstead Road	II	28,000	\$ -0-
24. Casa Verde Way	III	4,800	800.00
25. Encina Avenue	III	1,500	250.00
TOTALS		205,475 = 38.9 miles	\$50,600.00*

*(includes 10% inflation and 10% interest allowances)

Capital Improvements Program Planned Expenditures

F.Y. 74-75	Bikeroute Nos. 1, 2, 3, 4, and 18 (Part)	\$ 4,375.00
F.Y. 75-76	Bikeroute Nos. 6 (Part), 8, 9, 10, 11, 12, 17, 18 and 19.	9,000.00
F.Y. 76-77	Bikeroute Nos. 13, 14, and 15.	14,850.00
F.Y. 77-78	Bikeroute Nos. 5, 21, 22, 23, 24 and 25.	8,975.00
F.Y. 78-79	Bikeroute Nos. 16 and 20	9,125.00
Beyond	Bikeroute Nos. 6 and 7	4,275.00
		\$50,600.00



B I B L I O G R A P H Y

- American Automobile Association. Planning Criteria for Bikeways. Falls Church, VA: American Automobile Association, 1973.
- American River Parkway. Sacramento County General Plan Studies, Planning Department, n.d.
- Background Report, Bike Route Plan. City of Santa Ana Planning Department, 1973.
- Berkeley Bikeways Plan. Berkeley Local Transit Committee, 1971.
- Bicycles in Berkeley. Berkeley City Planning Department, 1971.
- Bicycle User Questionnaire Report. Monterey County Transportation Study, 1973.
- Bikeway Development Plan. Monterey County Transportation Study, 1974.
- Bikeway Planning Criteria and Guidelines. prepared for the State of California Business and Transportation Agency by the Institute of Transportation and Traffic Engineering, University of California, Los Angeles, 1972.
- Brooks, Mary E., "Planning for Urban Trails", Planning Advisory Service. Report No. 252. Chicago: American Society of Planning Officials, 1969.
- Cook, Walter L., Bike Trails and Facilities. American Institute of Park Executives, n.d.
- Eugene Bikeways. City of Eugene, Oregon, n.d.
- "Federal Funds for Bikeways", The American City, May, 1974.
- Footpaths and Bikeroutes. Salem Oregon: Oregon State Highway Division, 1972.
- Hamill, James P., "Planning and Development of Bikeway Systems", Urban Land, Vol. 32, No. 9. Washington, D.C: Urban Land Institute, 1973.
- Murphy, Tom A., 50 Northern California Bicycle Trips. Beaverton, Oregon: The Touchstone Press, 1972.
- National Easter Seal Society. Once Upon a Bicycle, PR22, in cooperation with the National Safety Council and Bicycle Institute of America, n.d.

BIBLIOGRAPHY, Continued

Policy Program Report, Bike Route Plan. City of Santa Ana
Planning Department, 1973.

Roadscapes Report. Roadscapes, Inc. San Francisco: Roadscapes,
Inc., 1973.

APPENDIX A: TCC POSITION STATEMENT REGARDING BIKEWAYS

POSITION STATEMENT REGARDING BIKEWAYS

Usage of the bicycle both as a means of transportation and for recreational purposes is increasing. Due to this increased use and the inherent problems that have resulted, there is a greater interest and need to establish the bicycling mode of travel as an element of the continuing comprehensive planning process.

The SMATS TCC has recognized the need for the inclusion of a bikeway system as a part of the overall transportation plan for this area. This element of the transportation plan will be developed through the addition of a work item into the SMATS work program. Development of a feasible balanced plan will be kept as simple as possible. The plan will be considered from two aspects: first from recreational, and secondly from transportation.

The following are general statements regarding development of a plan:

1. Since funds and personnel are not available for a full-fledged study, the study will be kept as simple as possible.
2. The plan is to be developed by primarily utilizing existing streets. This will be determined empirically by observing locations where bikeways are needed.
3. There will be exclusive bikeways where possible or practical.

4. Bikeways will be encouraged to be included in new development wherever possible.
5. Input to the plan and development of the plan should be a coordinated effort involving engineers, planners, parks and recreation personnel, and interested citizens.

STATEMENT OF PROCEDURES

I. Introduction:

Purpose of the Manual

Scope of the Bikeway Study

II. General Procedures and Considerations:

Bikeway Categories

Bikeway Locations

Factors to be Considered

Study Procedures

I. Introduction:

Purpose:

The purpose of this manual is to describe the various considerations and study procedures, and assign responsibilities needed for the establishment of a coordinated bikeway system in the SMATS area.

Scope:

Each jurisdiction will have to determine its own potential demand for bikeways by determining desires and usage. In order that the work may be organized, the scope of the study may be described as follows:

1. Bikeway Categories
2. Bikeway Locations
3. Factors to be Considered
4. Study Procedures

1. Bikeway Categories:

The term "bikeway" is used to designate all facilities that provide for the bicycle mode of travel. There are three classes of bikeway. Class I bikeways are completely separated rights-of-way designated for the exclusive use of bicycles. Class II bikeways are defined as restricted rights-of-way, generally on the street alignment, designated for the exclusive or semi-exclusive use of bicycles. Class III bikeways are defined as shared rights-of-way designated as such only by signs or stencilled pavement markers.

2. Bikeway Locations:

Possible locations for both urban and rural Class I bikeways may include transmission line rights-of-way, river banks, beach fronts, channel levees, irrigation canal embankments, railroad rights-of-way, highway rights-of-way, public parks, and urban redevelopment projects. Class II and Class III bikeways are located on existing streets.

3. Factors to be Considered:

- (a) Location of Activity Centers: Bikeways should lead to or end at desired activity center destination points. The location of main employment areas, schools, libraries, public parks and recreation areas, industrial parks, scenic features, and historical areas should be given consideration in the selection process.
- (b) Use of Preferred Streets: Use of the more convenient and uninterrupted collector and arterial streets that

are more preferred by bicyclists should be considered in determining both the locations and types of bike-ways.

- (c) Safety Considerations: The physical location of bicycle accidents on the street network. Identification of those streets where existing bicycle-automobile conflicts and hazards are greatest. Any plan should offer or provide an improved bicycle safety environment.
- (d) Conditions of existing roadway: The hazards, grade, route length, environmental quality, and congestion should be considered.
- (e) Future Development: Consideration of future land use to include some areas in the bikeway system.

4. Study Procedures:

- (a) Inventory any existing and proposed bikeways: Each agency should collect information concerning existing bikeways, both legally designated and user designated, and any proposed bikeways in its area. Efforts should be made to integrate both existing and proposed bikeways into the unified system.
- (b) Community participation: Enlist aid in formulating details of the proposed bikeway plan by meeting with local citizens. Information and assistance in bikeway planning can come from service and bicycle clubs,

schools, interested citizens, etc. The purpose is to determine alternates from the standpoint of community desires.

- (c) Visual observation: Observe the locations of possible routes. Identify particular streets predominantly used by bicyclists.
- (d) Determination of routes: Information regarding the possible routes is coordinated within each agency to determine the most feasible plan for its area. There should be coordination between parks and recreation, engineering, traffic, and planning, taking into account all considerations.
- (e) Preliminary bikeway map for each area: The planning and engineering departments in each jurisdiction will prepare a map of the existing and proposed bikeway plan for its area.
- (f) Coordination of plans: There will be meetings between agencies to coordinate plans for bikeways that pass between jurisdictional boundaries.
- (g) Areawide bikeway plan: The SMATS office will prepare an areawide bikeway plan by coordinating the various plans.
- (h) Review of plan: An area meeting to include all agencies and interested citizens will be held to review the plan, and to consider the feasibility of

implementation. The TCC will present the plan to the PAC.

- (i) Review and adoption: The PAC will review and adopt the bikeway plan.
- (j) Final map and report: The TCC will prepare a final map of the adopted plan and a final report.
- (k) Publicity and implementation: The PAC will implement the plan and publicize through local participants and schools.

Salinas-Monterey Area Transportation Study

"SMATS"

Participating Agencies

City of Carmel
 City of Del Rey Oaks
 City of Monterey
 City of Pacific Grove
 City of Salinas
 City of Sand City
 City of Seaside
 County of Monterey
 California Dept. of Transportation
 U. S. Dept. of Transportation

Office

622 S. SANBORN ROAD
 (Mail) c/o DEPT. OF TRANSPORTATION, BOX 59
 SALINAS, CALIFORNIA 93901
 424-0388

November 26, 1973

Bicycle User Questionnaire Report

On August 24, 1972, the SMATS TCC adopted a position statement regarding the development of a bikeway system plan to meet both the recreational and transportation usage for the bicycling mode in the SMATS area. Work Item 4.02 "Bikeway Plan Development", was incorporated into the 1973 SMATS work program which was approved by the TCC January 4, 1973, and the PAC February 22, 1973. Work was scheduled to begin August 1973 and be completed by December 1973.

To determine alternates from the standpoint of community desires, an effort was made to enlist the aid of schools, colleges, bicycle clubs and interested citizens to provide input into the study. A bicycle user questionnaire was prepared and mailed with a letter on September 7, 1973, to 90 schools and colleges in the SMATS area. The letter and questionnaire were also mailed on September 18, 1973, to all the known bicycle clubs in the SMATS area. They either reproduced the questionnaire or requested as many as desired from the SMATS office.

The questionnaire was designed to provide information about bicycle user preferences, attitudes and values, and kinds of trips made. The questionnaire provided a framework for analyzing the values, preferences and attitudes of bicycle users with respect to the roadways they use, the trips they take, their reasons for using their bicycle and their desire for using bikeways if such were provided. It should be pointed out that while the questionnaire provided several dimensions of bikeway demand it does not provide the whole of the picture. Studies of bicycle registration, sales, accidents, mixed-mode travel and origin and destination patterns are equally important in assessing the current and future demand for bikeways in the area.

As of November 1, 1973, approximately 1700 questionnaires had been returned by various schools, clubs and interested citizens. Table 1 lists the participants.

TABLE 1

<u>Participating Schools</u>	<u>Questionnaires Returned</u>
All Saints Episcopal Day School - Carmel	20
Carmel Unified School District - Carmel	545
Colton Jr. High School - Monterey	79
Fremont Jr. High School - Seaside	321
La Mesa Village School - Monterey	76
Larkin School - Monterey	82
Los Arboles Jr. High - Marina	20
Monterey Peninsula College - Monterey	54
Monte Vista School - Monterey	121
Moss Landing School - Moss Landing	28
Noche Buena School - Seaside	9
Notre Dame High School - Salinas	2
Pacific Grove High School - Pacific Grove	33
Palma High School - Salinas	110
Patton School - Fort Ord	18
Stilwell Jr. High School - Fort Ord	26
Washington Jr. High School - Salinas	35
	1,579

Participating Bike Clubs and Others

Salinas Bicycling Coalition - Salinas	61
Cypress Cycling Club - Monterey	--
Champanos Touring Club	--
ABLA - M.P.C.	--
Les Joselyn Bicycles - Monterey	--
Velo Club - Monterey	--
W.M. & M. Cyclery - Pacific Grove	--
Pedalera Wheelman	--
Salinas Wheelers	--

For the purpose of analysis the questionnaires were divided into three age groups: 14 and under, 15 to 17, and 18 and over. Most of the questionnaires were returned by the under 14 age group, followed by the over 18 age group. High schools in the area provided very little input as indicated in the 15 to 17 age group. Ten speed bikes are the predominant type used, with increasing use with age level. Table 2 shows a summary of the user by age and sex and the speed of bike used.

TABLE 2Age and Sex

<u>Age</u>	<u>Male</u>	<u>Female</u>
-10	25	20
10	34	32
11	97	96
12	165	118
13	136	89
14	80	41
15 to 17	43	37
18 to 21	23	10
22 to 29	29	5
30 to 39	6	9
40 to 49	14	2
50+	3	2
	655	461

Bicycle Speeds

<u>Speeds</u>	<u>18+</u>		<u>15 to 17</u>		<u>≤ 14</u>	
	<u>No.</u>	<u>Percent</u>	<u>No.</u>	<u>Percent</u>	<u>No.</u>	<u>Percent</u>
1	3	3.0	1	2.0	184	20.0
2	1	1.0	0	0	3	----
3	9	9.0	5	8.0	185	20.0
5	2	2.0	7	11.0	81	9.0
10	84	84.0	48	76.0	482	51.0
15	1	1.0	2	3.0	1	----
	100		63		936	

One question was structured to enable the person to select his position between two numeric extremes. When asked to check the reasons for using their bicycles and to rate each reason in importance, the 14 and under age group placed the highest importance upon bicycling as a form of transportation, followed by recreation and riding with their friends. The least important uses for them were to ride with their family and to save money. The 15 to 17 age group also indicated the highest importance for them was transportation followed by recreation and to exercise. The least important were to ride with their family and to save time and money. The 18 and over group placed the highest importance upon bicycling as a form of exercise, followed by recreation. The least important uses for them were to save time and to ride with their family. Table 3 shows the rating by those sampled by age group.

TABLE 3

Percent Rating of Importance for Riding Bicycle

	<u>≤14</u>	<u>15 to 17</u>	<u>18+</u>
A. Recreation	77.0	77.4	82.7
B. To exercise	66.0	75.4	92.3
C. For transportation	81.3	79.8	67.8
D. To save time	68.8	64.3	50.1
E. To save money	50.4	64.5	67.7
F. For environmental reasons	61.8	71.2	79.3
G. To ride with my friends	76.6	65.8	56.7
H. To ride with my family	42.8	32.6	52.6

Mixed mode travel was important in the 18 and over age group. Most indicated they had bike racks to carry their bicycles to a riding area. Another question provided preliminary information on the distance a bicyclist is willing to travel out of his way to use a bikeway if one were available. Most indicated from five to ten blocks ($\frac{1}{2}$ to 1 mile) as the desired distance.

Many replies were interesting and provided valuable input, especially the supplementary remarks. Many indicated they travelled on streets with high auto traffic when making a typical trip and expressed their

feelings in regard to the dangers of present riding conditions and what steps could be made to minimize these dangers. The indication was people would use their bicycle more if it was safer to do so and more people would ride bikes if paths were available.

The following comments are a sampling of some of the feelings expressed:

More people would ride if it was safe to do so and if there were more bikeways.

Safer paths would encourage wider use of bicycles. More delineation and signing of bikeways.

Improvement of road shoulders would make bicycle riding safer (Route 68 and Carmel Valley Road and others).

More safety instruction in schools.

Enforce safe riding laws.

More organization and coordination of bike clubs.

More publicity about bikeways.

Publicity and education regarding the ecological, recreational and health advantages of bicycles.

Pave over the S.P.R.R. tracks from the Pacific Grove Sand Plant to Monterey for a bikeway. Build a bikeway over Carmel Hill on the equestrian path. Build bicycle parking stations at shopping centers and in downtown areas.

Eliminate parking in certain areas with few cars.

Ban the automobile in downtown Monterey.

Petition to have bikeways constructed.

Lobby with Parks Department and city and county legislators for bikeway construction.

Form "Improvement Assessment Districts" for the purpose of constructing bikeways.

Also there were many comments regarding specific areas and streets where bikeways are needed. Again this provides information regarding roadways actually used and the type of trip taken, be it school, work, shopping or recreational. The following is a sampling of those streets, routes and locations the user felt needed bikeways of some sort:

Monterey Peninsula Area

Asilomar to M.P.C., Pacific Grove, Monterey.
Carmel to Big Sur, Monterey, Pacific Grove.
Carmel to M.P.C. (not along freeway).
Carmel Hill (separate bikeway).
Carmel Highlands to Carmel, Monterey, Pebble Beach, M.P.C.
Carmel Valley to Big Sur, Carmel, Monterey, Village.
Carmel Valley Road (separate path to schools and village).
Del Rey Oaks to M.P.C.
Monterey to Pebble Beach, N.P.G.S.
Monterey to Toro Park.
Moss Landing to Point Lobos (recreational path at sea level).
Moss Landing (in Moss Landing to Moss Landing school).
N.P.G.S. to M.P.C., to Monte Mart, to 17 mile drive and Asilomar).
Pacific Grove to M.P.C., N.P.G.S., Del Monte Center.
Pacific Grove to Monterey.
Pebble Beach to Pacific Grove.
Point Lobos.
Rio Road to M.P.C. (parallel to Highway 1).
Rio Road (along side).
Seaside to M.P.C., Monterey, Pacific Grove, Carmel.
Seaside to Cannery Row.
Seaside to Toro Park.
Skyline Drive to Pacific Grove.
Sunset Drive (along P.G. shoreline and Asilomar State Beach).
Seventeen Mile Drive.

Monterey City

Cannery Row.
Casa Verde Street.
Castro Road.
Dahvee Park.
Dela Vina Avenue.
Del Monte Avenue.
Del Monte Center.
Dennis the Menace Playground.
Fishermans Wharf.
Franklin Street.
Fremont Street.
Iris Canyon Road.
Josselyn Canyon Road to Del Monte Center.
La Mesa to M.P.C.
La Mesa School.
Lighthouse Avenue.
Monte Vista School.
Munras Avenue (separate path in Dahvee Park).
Ocean Avenue.
Pacific Street (to schools and downtown).
Path of History.
San Bernabe Drive.

Monterey City (continued)

San Bernabe to M.P.C.
Skyline to M.P.C., to Del Monte Center.
Soledad Street.
Via Del Rey Street.
Via Del Pinar Street.
Via Paraiso Park.
Via Paraiso Street.

Seaside Area

Canyon Del Rey.
Casanova Street.
Del Monte Boulevard.
Fremont Boulevard.
Fremont Junior High School.
Monte Mart.
Youth Center.
Carmel Avenue, Marina.
Crescent Avenue, Marina.
DeForest, Marina.
Reservation Road, Marina.

Pacific Grove

Asilomar Avenue.
Congress.
Forest Avenue.
Laurel Avenue.
Lighthouse.
Ocean Boulevard.
Pacific Grove High School.
Sunset Drive.
Seventeen Mile Drive.

Salinas Area

Correl de Tierra to Salinas.
Palo Colorado Canyon.
River Road.
Salinas to Monterey (via Toro Park and Highway 68).
Salinas to Monterey (via Blanco and Reservation Roads).
Salinas to Toro Park.
Salinas to Prunedale (separate path parallel to 101).
San Juan Grade Road.
Alisal Street.
Downtown Salinas.
East Laurel to South Main Street.
East Laurel to Hartnell College, to Washington Junion High School.
Hartnell College to Toro Park.
Hartnell College to Main Street.
Main Street.

QUESTIONS TO BE ANSWERED BY THE BICYCLE USER

1. How many speeds does your bicycle have? _____ Your age _____ Sex _____
2. What is your relation to the head of the household?
Head _____ Spouse of head _____ Child of head _____ Unrelated _____
3. Please indicate which of the following types of transportation YOU normally use during a typical week by placing a 1 next to the type YOU use most frequently, a 2 next to the second most frequent, and so on until you have ranked all types of transportation you normally use:
_____ Auto _____ Motorcycle _____ Public Transportation _____ Bicycle
_____ Walking _____ Other

Note: For questions 4-6, circle the appropriate number to the right of the question. If the question is not applicable, circle NA.

4. How favorable is your immediate neighborhood for bicycle use? Not at All Extremely

1
2
3
4
5
6
7
NA
5. How important to you is each reason for riding your bicycle?

A. For recreation	1	2	3	4	5	6	7	NA
B. To exercise	1	2	3	4	5	6	7	NA
C. For transportation	1	2	3	4	5	6	7	NA
D. To save time	1	2	3	4	5	6	7	NA
E. To save money	1	2	3	4	5	6	7	NA
F. For environmental reasons	1	2	3	4	5	6	7	NA
G. To ride with my friends	1	2	3	4	5	6	7	NA
H. To ride with my family	1	2	3	4	5	6	7	NA
I. Other (specify) _____								
6. To what extent would bicycle pathways (i.e., some designated pathway which is generally restricted to bicyclists) increase the number of times YOU use your bicycle if placed in the following places?

A. Pathways in downtown metropolitan areas	1	2	3	4	5	6	7	NA
B. Pathways along major arterial streets	1	2	3	4	5	6	7	NA
C. Pathways along residential or secondary streets	1	2	3	4	5	6	7	NA
D. Pathways through recreation areas or parks	1	2	3	4	5	6	7	NA
7. Please fill in the appropriate response under headings I and II for each of the types of bicycle trips YOU take. Under heading III, check whether MOST of these trips are made on weekdays OR weekends.

	I	II	III	IV*
Types of Trip	No. of Round Trips Per Week	Approx. One way Dist. in Miles on Bicycle	Check one Week- or Week- End	Indicate Origin & Destination from To
A. Travel to and from work	_____	_____	_____	_____
B. Travel to and from school	_____	_____	_____	_____
C. Shopping trip	_____	_____	_____	_____
D. Recreational trip	_____	_____	_____	_____
E. Other (specify) _____	_____	_____	_____	_____

*Approx. Address

8. Please check each of the following ways YOU use your bicycle.

_____ A. To get to other means of transportation (e.g., bicycle to bus).

_____ B. Transport bicycle close enough to ride bicycle to work (e.g., auto with bicycle rack).

_____ C. Transport bicycle close enough to ride bicycle to school.

_____ D. Transport bicycle close enough to ride bicycle to shopping area.

_____ E. Transport bicycle close enough to ride bicycle to or in recreational area.

_____ F. Other (specify) _____.

9. If a bicycle pathway were built parallel to the route that you now take for NON-recreational purposes, how many blocks would YOU be willing to go out of YOUR way to ride on the pathway? (Assume 10 blocks = 1 mile).

None at all _____ Number of blocks _____

10. How many continuous years have YOU used a bicycle regularly for NON-recreational purposes? _____

11. Do you belong to a bicycle club or organization? Yes _____ No _____

Which One? _____

12. Do you own a car? Yes _____ No _____ A motorcycle? Yes _____ No _____

13. If you have any ideas or comments on how to encourage wider use of bicycles, how to create bicycle pathways in your area or specific areas where bikeways are needed, please indicate below.



TENTATIVE BIKEWAY PLAN

CITY OF MONTEREY PLANNING DEPARTMENT

11-19-73

APPENDIX D: BICYCLE PARKING SURVEY

Naval Postgraduate School

by
Jack Mellor, Chairman
Group No. 4

March 5, 1974, 11:45 a.m. - 12:15 p.m.

1. Library	22
2. Ingersol-Root	11
3. Halligan 234	7
4. Root Halligan 1	4
5. Root Halligan 2	8
6. Halligan 234 Back Corner	4
7. Spanagel Front	17
8. Spanagel Basement	1
9. Spanagel Rear	6
10. King Hall	5
11. Exchange Main	5
12. Exchange Outdoor	0
13. FNWC	4
14. Herman Rear Ramp	3
15. Misc.	<u>11</u>
TOTAL	108

APPENDIX D: LIST OF PROGRAM PARTICIPANTS AND PERSONS CONSULTED

Program Participants

Group No. 1: New Monterey and Monterey Heights

Wally Partymiller, Chairman
Mark Stanley
Paul Brown
John Hummel
Ken Bradford

Group No. 2: Monte Vista/Monte Regio/Skyline

Karla Raudstein, Chairman
Betty Young
Peter Jerram

Group No. 3: Downtown/Oak Grove

Dennis Kaysing, Chairman
Todd Miller
Ed Horton
Andy Anderson
Judy Sterett

Group No. 4: Del Monte/Oak Knoll

Jack C. Mellor, Chairman
Mrs. Jack Mellor
Ward Allison
Lee O'Brien
Jean Brownell
Hal Elgie

Group No. 5: Aguaquito/La Mesa Village/Fisherman's Flats

Daryl Hawkins, Chairman
Connie Thayer
Joel Leker

Persons Consulted

Bruce Thompson, Monterey County Transportation Study
John Maes, Monterey County Transportation Study
Ensley Bennett, Engineering, City of Salinas
Oliver Bradford, President, Velo Club, Monterey
John Thayer, Velo Club, Monterey
Marty D. Omoto, President, Associated Students,
Monterey Peninsula College
Steve Nakajima, President, Monterey High School Student Body
Norma Lazzarini, Fourth Grade Teacher, Monte Vista Elementary School
Jody Conley, Instructor, Bicycle Class, Forest Grove Elementary

Gary Chalupsky, Executive Director, Monterey Urban Renewal
Agency

Sgt. Ken Johnson, City of Monterey Police Department
Officer Jim Roseman, City of Monterey Police Department

R. Marshall Reeves, City of Monterey Parking Division

Kelly Morgan, Senior Regional Planner, AMBAG

Bob Woodruff, Planning Director, City of Pacific Grove

Tony Lobay, Assistant Planning Director, City of Pacific
Grove

John Carlson, Associate Planner, City of Seaside

Ernie Franco, Planner, County of Monterey

U.C. BERKELEY LIBRARIES



C101743165

